SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Mike La Villa Examiner #: 73026 Date: 1/21/04
Art Unit: 1775 Phone Number 30 2-1539 Serial Number: 10/053,617
Mail Box and Bldg/Room Location: 5E79 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

****

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Hydrophilic Polymer

Inventors (please provide full names): Yamashita, Sumitaka Kawamura, Kenichi

Earliest Priority Filing Date:

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Please do structure/CRN search as appropriate - Cl 1,2,5 ONLY

(Closest art is first.)

****

STAFF USE ONLY	Type of Search	Vendors and cost where applicable
Searcher: EG	NA Sequence (#)	STN $245.21
Searcher Phone #:	AA Sequence (#)	Dialog
Searcher Location:	Structure (#) ✓ (No)	Questel/Orbit
Date Searcher Picked Up:	Bibliographic ✓ (Card)	Dr.Link
Date Completed: 1-23-04	Litigation	Lexis/Nexis
Searcher Prep & Review Time: 5	Fulltext	Sequence Systems
Clerical Prep Time:	Patent Family	WWW/Internet
Online Time: 75	Other	Other (specify)

PTO-1590 (8-01)

10/053,617

What is claimed is:

1. A polymer compound comprising:

i) a polymerization unit represented by $-(CHR^3-CR^4(-L^1-Y^1))_x-(CHR^5-CR^6(-L^2-Y^2))_y-$; and

X≠0

ii) a silane coupling group represented by $-S-(CH_2)_n-Si-(R^1)_m(OR^2)_{3-m}$, as a terminal of the polymer,

n = 1-8

wherein R^1, R^2, R^3, R^4, R^5, and R^6 each independently represents a hydrogen atom or a hydrocarbon group having 1 to 8 carbon atoms; m represents 0, 1 or 2; n represents an integer of 1 to 8; x is 100 to 1 mol%; y is 0 to 99 mol%; x + y = 100 mol%; L^1 and L^2 each independently represents a single bond or an organic connecting group; and Y^1 and Y^2 each independently represents $-N(R^7)(R^8)$, -OH, $-NHCOR^7$, $-COR^7$, $-CO_2M$, or $-SO_3M$, wherein R^7 and R^8 each independently represents a hydrogen atom or an alkyl group having 1 to 8 carbon atoms and M represents a hydrogen atom, an alkali metal, an alkaline earth metal, or an onium.

1,2,5
3,4,5,6 -11

2. The polymer compound according to claim 1, which has a weight average molecular weight of 1,000 to 100,000.

cancelled 1/12/04

3. A lithographic printing plate base comprising: a support; and a hydrophilic layer containing solid particles to a surface of which a hydrophilic polymer is chemically bonded.

4. The lithographic printing plate base according to claim 3, which further comprises an undercoat layer between the support and the hydrophilic layer.

5. The lithographic printing plate base according to claim 3, wherein the hydrophilic polymer is a polymer compound according to claim 1.

6. The lithographic printing plate base according to claim 3, wherein the support has a roughened surface.

7. The lithographic printing plate base according to claim 3, wherein the solid particles are inorganic particles.

8. The lithographic printing plate base according to claim 7, wherein the inorganic particles have an average particle size of 10 μm or less.

9. The lithographic printing plate base according to claim 3, wherein the hydrophilic polymer has a silane coupling group as a terminal thereof, and the silane coupling group is chemically bonded to the surface of the solid particles.

10. The lithographic printing plate base according to claim 3, wherein the hydrophilic layer has a thickness of

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L2         19419 S KAWAMURA ?/AU
L3            45 S L1 AND L2
L4           966 S YAMASAKI S?/AU
L5          3565 S KAWAMURA K?/AU
L6            14 S L4 AND L5
L7         94355 S LITHO? OR PHOTOLITHO? OR CHROMOLITHO? OR PHOTOCHROMOLIT
L8             6 S L6 AND L7
                 SEL L8 1-6 RN

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L10           36 S L9 AND PMS/CI
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L26         154 S L24
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L28           1 S L26 AND L7
L29             QUE (35 OR 36 OR 37 OR 38)/SC,SX
L30          31 S L25 AND L29
L31       16957 S PRINT?(2A)(PLATE OR PLATES)
L32       86009 S HYDROPHIL? OR LIPOPHOB?
L33          11 S L25 AND L31
L34          10 S L25 AND L32
L35           5 S L26 AND L31
L36           8 S L26 AND L32
L37          18 S L13 OR L14 OR L27 OR L28 OR L33 OR L34 OR L35 OR L36
L38          24 S L30 NOT L37
L39          14 S L25 NOT (L37 OR L38)

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=> d l20 que stat
L15             STR

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1   2   3


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DEFAULT ECLEVEL IS LIMITED

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STEREO ATTRIBUTES: NONE
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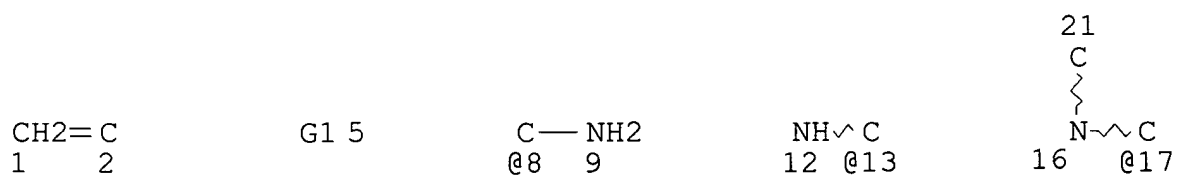
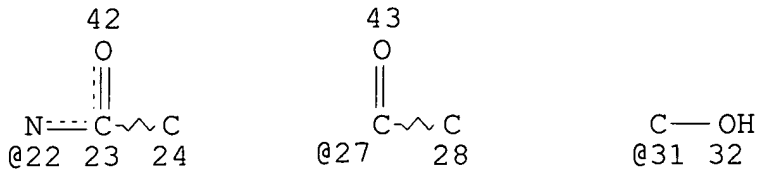


Page 1-A



Page 1-B
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NSPEC IS RC AT 21
NSPEC IS RC AT 24
NSPEC IS RC AT 28
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

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NUMBER OF NODES IS 19

STEREO ATTRIBUTES: NONE
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=> d l37 1-18 cbib abs hitstr hitind

L37 ANSWER 1 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:809251 Document No. 139:314513 **Lithographic** master plates showing improved durability of dots and lines of patterned layers on repeated uses. Kato, Eiichi; Tashiro, Hiroshi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003291553 A2 20031015, 26 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-100178 20020402.

AB The plates, suited for CTP (computer-to-plate) platemaking, have, on water-resistant supports, (i) **hydrophilic** layers contg. particulate hydrophobic precursors and **hydrophilic** binder polymers and (ii) imaging layers contg. photothermal converters and encapsulated hydrophobic resins bearing .gtoreq.2 at. groups of aggregation energy .gtoreq.10 kg/mol in mer unit. The binder polymers are composites of resins bearing O-bridged (semi)metal chains and **hydrophilic** org. polymers. The plates show good on-press developability and are resistant against soiling on background area.

IT **444336-22-5P**, Acrylamide-3-mercaptopropyltrimethoxysilane telomer
(hybrids with tetramethoxysilane, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

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CRN 4420-74-0
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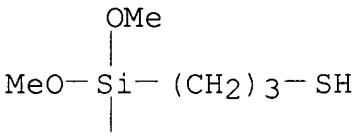
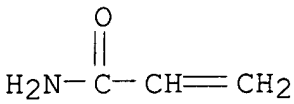


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41N001-14
ICS G03F007-00; G03F007-004; G03F007-075; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38

ST **lithog** master **hydrophilic** binder dot pattern durability; acrylic silicate hybrid background **lithog** master durability; encapsulated hydrophobic resin imaging layer **lithog** plate; aggregation energy hydrophobic resin microcapsule **lithog** plate

IT Hybrid organic-inorganic materials
Lithographic plates
Microcapsules
(**lithog**. master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT Epoxy resins, uses
(microencapsulated, patterning layers; **lithog**. master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT Polyurethanes, preparation
(polyester-, microencapsulated, patterning layers; **lithog**. master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT Polyesters, uses
(supports; **lithog**. master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 612088-65-0P
(core-shell, background layers; **lithog**. master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT **444336-22-5P**, Acrylamide-3-mercaptopropyltrimethoxysilane telomer
(hybrids with tetramethoxysilane, background layers; **lithog**. master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 681-84-5, LS 540
(hybrids with trimethoxysilyl-terminated polyacrylamide, background layers; **lithog**. master **plates** showing excellent **printing** durability of dots and lines

of patterned layers)
IT 266309-16-4, Takenate D 119N
(microcapsule shell; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 37337-02-3, Takenate D 110N 51852-81-4, Trimethylolpropane-xylylene diisocyanate copolymer
(microcapsule shells; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 52892-61-2P, Adipic acid-butanediol-MDI copolymer
(microencapsulated, patterning layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 25068-38-6, Epikote 1004 25085-99-8, Epikote 1003 29661-89-0, Nikanol NP 100 64296-04-4, Nikanol HP 70
(microencapsulated, patterning layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 612081-60-4P, 2,2-Bis(hydroxymethyl)propionic acid-Burnock DN 980 copolymer triethylamine salt
(particulate, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 9011-14-7, Poly(methyl methacrylate)
(particulate, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 177086-29-2
(photothermal converters, patterning layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)
IT 25038-59-9, Poly(ethylene terephthalate), uses
(supports; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

L37 ANSWER 2 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:809250 Document No. 139:314512 **Lithographic** masters showing improved durability of thin dot or line pattern layers. Kato, Eiichi; Tashiro, Hiroshi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003291552 A2 20031015, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-98701 20020401.
AB The plates, suited for CTP (computer-to-plate) platemaking, have, on water-resistant supports, (i) **hydrophilic** layers contg. particulate hydrophobic precursors and **hydrophilic** binder polymers and (ii) imaging layers contg. photothermal converters and microparticulate hydrophobic polymers bearing heat-reactive groups.

The binder polymers are composites of resins bearing O-bridged (semi)metal chains and **hydrophilic** org. polymers. The plates show good on-press developability and are resistant against soiling on background area.

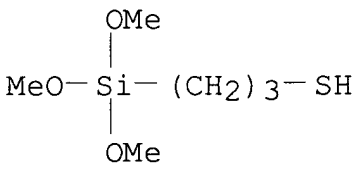
IT **444336-22-5P**, Acrylamide-3-mercaptopropyltrimethoxysilane telomer
(hybrids with tetramethoxysilane, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

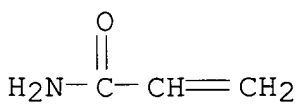


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41N001-14
ICS G03F007-00; G03F007-004; G03F007-075; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and

Other Reprographic Processes)
Section cross-reference(s): 38

ST **lithog** master **hydrophilic** binder dot pattern durability; acrylic silicate hybrid background **lithog** master durability; thermally reactive hydrophobic resin **lithog** plate

IT Hybrid organic-inorganic materials
(background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT **Lithographic** plates
Microcapsules
(**lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT Phenolic resins, uses
(novolak, cresol-based, microparticles, photoimaging layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT Polyesters, uses
(supports; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 612088-65-0P, Glycidyl methacrylate-styrene copolymer ester with ethyl acrylate-methacrylic acid-styrene copolymer
(core-shell, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT **444336-22-5P**, Acrylamide-3-mercaptopropyltrimethoxysilane telomer
(hybrids with tetramethoxysilane, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 681-84-5, LS 540
(hybrids with trimethoxysilyl-terminated polyacrylamide, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 25167-42-4P, Glycidyl methacrylate-styrene copolymer 26658-35-5P, Allyl methacrylate-styrene copolymer 53212-46-7P, Allyl methacrylate-divinylbenzene-styrene copolymer 196805-68-2P, Glycidyl methacrylate-methyl methacrylate-trimethylolpropane triacrylate copolymer
(microparticles, photoimaging layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 9003-53-6, Polystyrene 25608-33-7, Butyl methacrylate-methyl methacrylate copolymer 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer
(microparticles, photoimaging layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 612081-60-4P, 2,2-Bis(hydroxymethyl)propionic acid-Burnock DN 980 copolymer triethylamine salt
(particulate, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 9011-14-7, Poly(methyl methacrylate)
(particulate, background layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 177086-29-2
(photothermal converters, patterning layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 289893-03-4
(photothermal converters, photoimaging layers; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

IT 25038-59-9, Poly(ethylene terephthalate), uses
(supports; **lithog.** master **plates** showing excellent **printing** durability of dots and lines of patterned layers)

L37 ANSWER 3 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:762248 Document No. 139:283442 **Lithographic printing plate** precursors. Kato, Eiichi; Tashiro, Hiroshi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003276350 A2 20030930, 30 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2002-83472 20020325.

AB The title **printing plate** precursor has a **hydrophilic** layer and an image-forming layer on a moisture-resistant support, wherein the **hydrophilic** layer contains needle-shaped or porous filler and a **hydrophilic** binder polymer and wherein the image-forming layer contains hydrophobic substances in micro capsules and a light-to-heat compd. The **printing plate** precursor is immediately available after the development and shows high printing durability and little soiling during the printing.

IT **444336-22-5P**, Acrylamide-(3-mercaptopropyl)trimethoxysilane copolymer
(micro capsules for **lithog. printing plate** precursors)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
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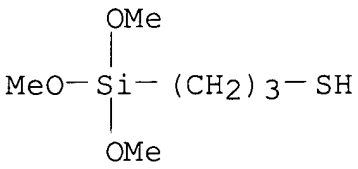

CM 2

CRN 9003-05-8
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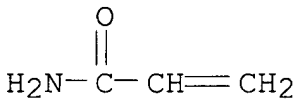
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41N001-14
ICS G03F007-00; G03F007-004; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **lithog printing plate** precursor
IT Zeolites (synthetic), uses
(filler in **hydrophilic** layer of **lithog. printing plate** precursors)
IT **Lithographic plates**
(**lithog. printing plate** precursors)
IT Synthetic fibers
(magnesium oxysulfate; filler in **hydrophilic** layer of **lithog. printing plate** precursors)
IT 1344-28-1, RH 30, uses 1344-95-2, Calcium silicate 7631-86-9,

Sylysia 320, uses 7782-42-5, Graphite, uses 121631-01-4, Tipaque FT 1000 169313-49-9, Tipaque FT 2000
(filler in **hydrophilic** layer of **lithog. printing plate** precursors)

IT 37337-02-3P, Takenate D 110N 357418-49-6P, Xylylene diisocyanate-Trimethylolpropane diacrylate-allyl methacrylate-butyl methacrylate copolymer **444336-22-5P**, Acrylamide-(3-mercaptopropyl)trimethoxysilane copolymer
(micro capsules for **lithog. printing plate** precursors)

IT 145269-05-2, Sumiepoxy ESCN 195X-HH
(micro capsules for **lithog. printing plate** precursors)

IT 471-34-1, Whiscal, uses 12005-61-7, Alborex
(whiskers; filler in **hydrophilic** layer of **lithog. printing plate** precursors)

L37 ANSWER 4 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:656818 Document No. 139:198261 Graft copolymers and impact-resistant flame-retardant resin compositions containing the same. Hashimoto, Tomomichi; Saegusa, Kazunori; Tsuneishi, Koji; Miyatake, Nobuo; Takagi, Akira (Kaneka Corporation, Japan). PCT Int. Appl. WO 2003068835 A1 20030821, 46 pp. DESIGNATED STATES: W: CA, CN, KR, SG, US; RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR. (Japanese). CODEN: PIXXD2. APPLICATION: WO 2003-JP1622 20030217. PRIORITY: JP 2002-38664 20020215; JP 2002-133077 20020508.

AB A graft copolymer obtained by polymg. 0.5-10 parts vinyl monomer component comprising 50-100% of a polyfunctional monomer having .gtoreq.2 polymerizable unsatd. bonds in the presence of 40-90 parts of polyorganosiloxane particles and then polymg. 5-50 parts vinyl monomer in the resulting system; a graft copolymer obtained by polymg. 0-10 parts vinyl monomer component comprising 50-100% polyfunctional monomer having .gtoreq.2 polymerizable unsatd. bonds in the presence 30-95 parts polyorganosiloxane latex obtained by seed polymn. wherein a **hydrophilic** and organosiloxane-swellable polymer is used as the seed and then polymg. 5-70 parts vinyl monomer in the resulting system; flame retardants consisting of the graft copolymers; and resin compns. comprising thermoplastic resins and the graft copolymers.

IT **583024-64-0P**, Allyl methacrylate-3-mercaptopropyldimethoxymethylsilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer **583024-65-1P**, Allyl methacrylate-butyl acrylate-3-mercaptopropyldimethoxymethylsilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer **583024-66-2P**, Acrylonitrile-allyl methacrylate-butyl methacrylate-.gamma.-mercaptopropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft copolymer

(fireproofing agent; graft copolymers and impact-resistant flame-retardant resin compns. contg. the same)

RN 583024-64-0 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol, octamethylcyclotetrasiloxane and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

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CRN 31001-77-1
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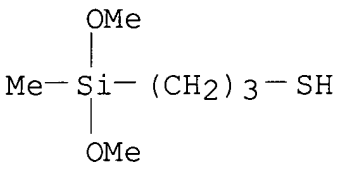

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CRN 556-67-2
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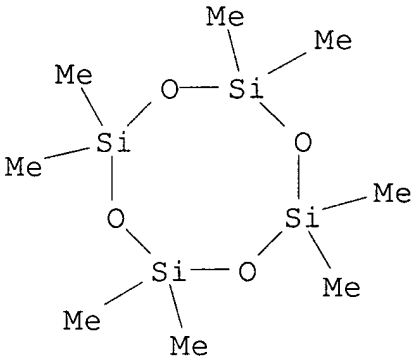
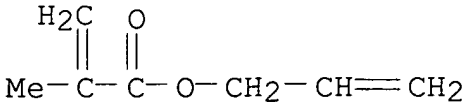


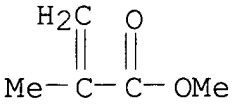
CM 3

CRN 96-05-9
CMF C7 H10 O2



CM 4

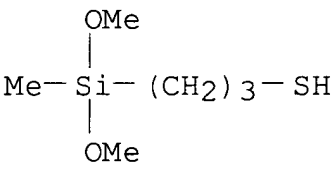
CRN 80-62-6
CMF C5 H8 O2



RN 583024-65-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, methyl ester, polymer with butyl 2-propenoate, 3-(dimethoxymethylsilyl)-1-propanethiol, octamethylcyclotetrasiloxane and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

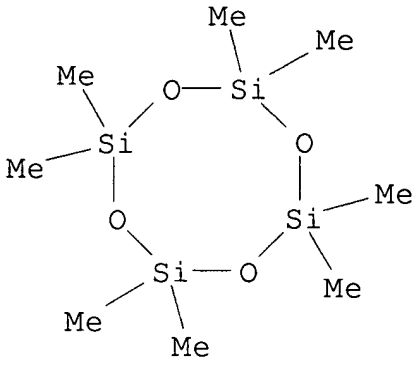
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



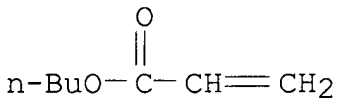
CM 2

CRN 556-67-2
CMF C8 H24 O4 Si4



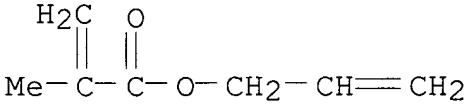
CM 3

CRN 141-32-2
CMF C7 H12 O2



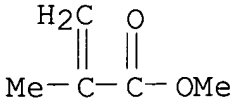
CM 4

CRN 96-05-9
CMF C7 H10 O2



CM 5

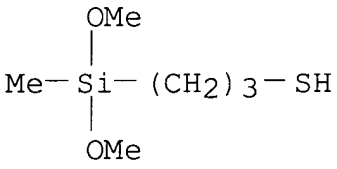
CRN 80-62-6
CMF C5 H8 O2



RN 583024-66-2 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol, ethenylbenzene, octamethylcyclotetrasiloxane, 2-propenenitrile and 2-propenyl 2-methyl-2-propenoate, graft (9CI) (CA INDEX NAME)

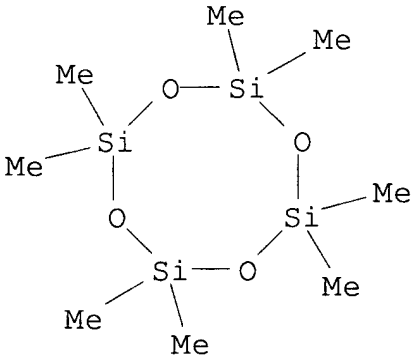
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



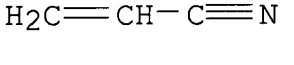
CM 2

CRN 556-67-2
CMF C8 H24 O4 Si4



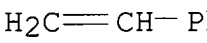
CM 3

CRN 107-13-1
CMF C3 H3 N



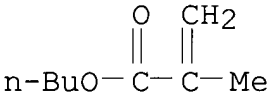
CM 4

CRN 100-42-5
CMF C8 H8



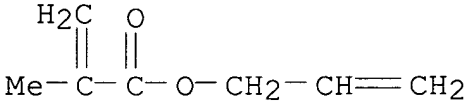
CM 5

CRN 97-88-1
CMF C8 H14 O2



CM 6

CRN 96-05-9
CMF C7 H10 O2



IC ICM C08F283-12
ICS C08L051-08; C08L069-00
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 39
IT **583024-64-0P**, Allyl methacrylate-3-mercaptopropyldimethoxymethylsilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer **583024-65-1P**,

Allyl methacrylate-butyl acrylate-3-mercaptopropyldimethoxymethylsilane-methyl methacrylate-octamethylcyclotetrasiloxane graft copolymer **583024-66-2P**, Acrylonitrile-allyl methacrylate-butyl methacrylate-.gamma.-mercaptopropyldimethoxymethylsilane-octamethylcyclotetrasiloxane-styrene graft copolymer
(fireproofing agent; graft copolymers and impact-resistant flame-retardant resin compns. contg. the same)

L37 ANSWER 5 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:568607 Document No. 139:118407 **Lithographic printing plate** precursor. Oohashi, Hidekazu; Yamasaki, Sumiaki (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1329311 A1 20030723, 38 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2003-592 20030114. PRIORITY: JP 2002-10311 20020118.

AB A **lithog. printing plate** precursor comprises a support having a **hydrophilic** layer which is converted to hydrophobic by heating, where the **hydrophilic** layer contains (1) an org. and inorg. composite having a crosslinked structure obtained by hydrolysis and polycondensation on condition of coexistence of a metal complex compd. and an org. **hydrophilic** resin, and (2) core-shell structural fine particles contg. a resin core having a functional group capable of interacting with the org. and inorg. composite and a resin shell not substantially having a functional group capable of interacting with the org. and inorg. composite.

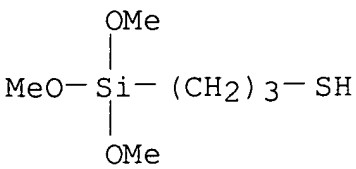
IT **444336-22-5P**, Acrylamide-(3-mercaptopropyl)trimethoxysilane telomer
(**hydrophilic** resin composite layer; plate precursor having supported layer of org./inorg. composite and core-shell resin particles)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

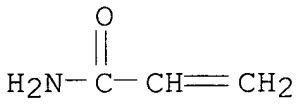


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41C001-10
ICS B41M005-36
CC 38-3 (Plastics Fabrication and Uses)
Section cross-reference(s): 74
ST heat scratch resistance **printing plate** precursor; core shell particle **hydrophilic** layer **printing plate** precursor; graft **hydrophilic** resin **printing plate** precursor
IT Coating materials
(**hydrophilic** coatings; plate precursor having supported layer of org./inorg. composite and core-shell resin particles)
IT **Lithographic** plates
(plate precursor having supported layer of org./inorg. composite and core-shell resin particles)
IT **444336-22-5P**, Acrylamide-(3-mercaptopropyl)trimethoxysilane telomer
(**hydrophilic** resin composite layer; plate precursor having supported layer of org./inorg. composite and core-shell resin particles)

L37 ANSWER 6 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2003:478923 Document No. 139:44254 **Lithographic printing plate** material for digital scanning exposure. Yamazaki, Sumiaki; Kawamura, Koichi; Hoshi, Satoshi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003175683 A2 20030624, 25 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-379053 20011212.

AB Material, having a **hydrophilic** layer with a crosslinked structure formed by hydrolysis and condensation polymn. of an alkoxide with a **hydrophilic** graft chain, contg. an element selected from Si, Ti, Zr, and Al, contains aq. dispersing particles providing a hydrophobic area when heated or exposed to radiation. The material shows high hydrophobicity and improved printing durability and stain prevention in non-image areas.

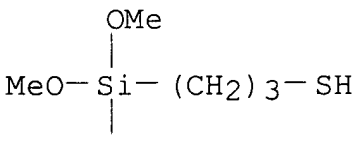
IT **457886-77-0**
(polymer dispersion; **lithog.** plate contg. **hydrophilic** layer formed from metal alkoxide and polymer dispersion)

RN 457886-77-0 HCAPLUS

CN Acetamide, N-ethenyl-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

CRN 28408-65-3
CMF (C4 H7 N O)x
CCI PMS

CM 3

CRN 5202-78-8
CMF C4 H7 N O

AcNH—CH═CH_2

IC ICM B41N001-14
ICS G03F007-00; G03F007-004; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **lithog** plate **hydrophilic** layer metal alkoxide graft copolymer; polymer dispersion hydrophobic area **lithog** plate
IT **Lithographic** plates
(**lithog.** plate contg. **hydrophilic** layer formed from metal alkoxide and polymer dispersion)
IT 7631-86-9, Snowtex C, uses
(colloidal, polymer dispersion; **lithog.** plate contg. **hydrophilic** layer formed from metal alkoxide and polymer dispersion)
IT 543728-02-5P, Acrylamide-tetramethoxysilane copolymer
543728-05-8P, Tetramethoxysilane-N-vinylacetamide copolymer
(**lithog.** plate contg. **hydrophilic** layer formed from metal alkoxide and polymer dispersion)
IT 1344-28-1, Alumina, uses 13463-67-7, STS 01, uses 26936-30-1
56486-71-6 141954-42-9 387868-76-0 **457886-77-0**
543728-16-1
(polymer dispersion; **lithog.** plate contg. **hydrophilic** layer formed from metal alkoxide and polymer dispersion)

L37 ANSWER 7 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:451799 Document No. 139:28652 Planographic **printing plate** precursor having specific **hydrophilic** polymer in **hydrophilic** layer. Yamasaki, Sumiaki; Kawamura, Koichi; Hotta, Hisashi (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1318027 A2 20030611, 43 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2002-27547 20021209. PRIORITY: JP 2001-374156 20011207.
AB The invention provides a planog. **printing plate** precursor, utilizing a support member having a **hydrophilic** surface excellent in **hydrophilicity** and durability, providing effects of improving scumming in the printing operation and capable of forming large nos. of prints of high image quality even under severe printing conditions. The precursor comprises a support including an aluminum substrate and a **hydrophilic** layer disposed thereon, the **hydrophilic** layer formed by

chem. bonding a **hydrophilic** polymer, which includes a reactive group able to chem. bond to a surface of the aluminum substrate directly or via a structural component comprising a crosslinked structure; and a pos. metalworking recording layer disposed on the support and including a light-absorbing and heat-generating material, and a polymer compd., which is insol. in water and sol. in alkali, wherein soly. of the recording layer in an alk. aq. soln. increases upon exposure to light.

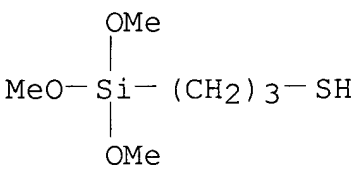
IT **444336-22-5P 444336-25-8P 478364-47-5P 478364-50-0P 478364-52-2P 537022-48-3P**
(coating soln. for **hydrophilic** layer; planog. **printing plate** precursor)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

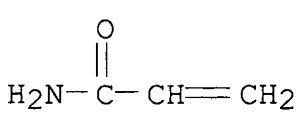


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O

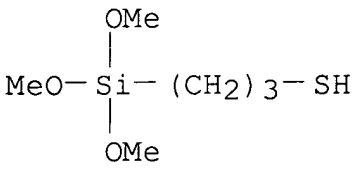


RN 444336-25-8 HCAPLUS

CN 2-Propenamide, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

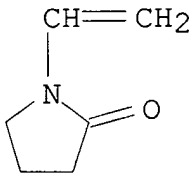


CM 2

CRN 26124-23-2
CMF (C6 H9 N O . C3 H5 N O)x
CCI PMS

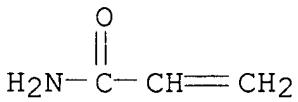
CM 3

CRN 88-12-0
CMF C6 H9 N O



CM 4

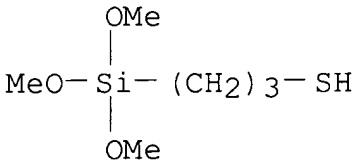
CRN 79-06-1
CMF C3 H5 N O



RN 478364-47-5 HCAPLUS
CN 2-Propenamide, N-(2-amino-2-oxoethyl)-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

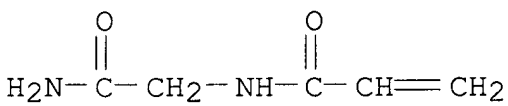


CM 2

CRN 25987-89-7
CMF (C5 H8 N2 O2)x
CCI PMS

CM 3

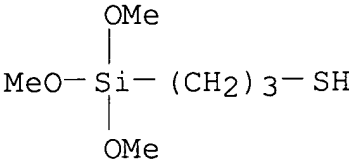
CRN 2479-62-1
CMF C5 H8 N2 O2



RN 478364-50-0 HCAPLUS
CN 2-Propenamide, N-(2-amino-2-oxoethyl)-, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

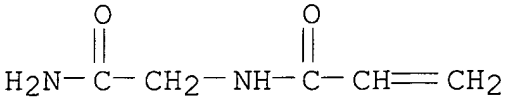


CM 2

CRN 478364-49-7
CMF (C6 H9 N O . C5 H8 N2 O2)x
CCI PMS

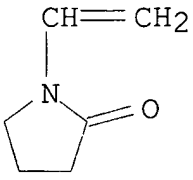
CM 3

CRN 2479-62-1
CMF C5 H8 N2 O2



CM 4

CRN 88-12-0
CMF C6 H9 N O

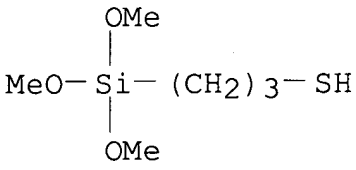


RN 478364-52-2 HCAPLUS
CN Glycine, N-(1-oxo-2-propenyl)-, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0

CMF C6 H16 O3 S Si

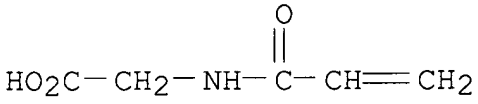


CM 2

CRN 116242-11-6
CMF (C6 H9 N O . C5 H7 N O3)x
CCI PMS

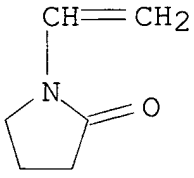
CM 3

CRN 24599-25-5
CMF C5 H7 N O3



CM 4

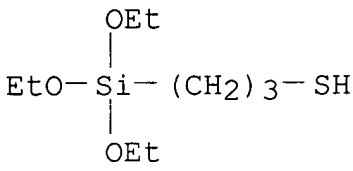
CRN 88-12-0
CMF C6 H9 N O



RN 537022-48-3 HCAPLUS
CN 2-Propenamide, N,N-dimethyl-, telomer with 3-(triethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 14814-09-6
CMF C9 H22 O3 S Si

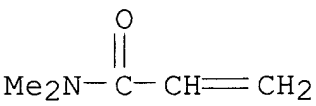


CM 2

CRN 26793-34-0
CMF (C5 H9 N O)x
CCI PMS

CM 3

CRN 2680-03-7
CMF C5 H9 N O



IC ICM B41N003-03
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 35
ST planog **printing plate hydrophilic** polymer
IT **Printing plates**
(planog.; planog. **printing plate** precursor)
IT 31343-95-0P **444336-22-5P 444336-25-8P 478364-47-5P 478364-50-0P 478364-52-2P 537022-48-3P** 537022-52-9P
(coating soln. for **hydrophilic** layer; planog. **printing plate** precursor)
IT 7429-90-5, Aluminum, uses
(substrate; planog. **printing plate** precursor)

L37 ANSWER 8 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:401828 Document No. 138:409412 **Lithographic printing plate** with image receiving layer

containing silane coupling agent-terminated vinyl copolymer. Tashiro, Hiroshi; Kasai, Kiyoshi; Yamazaki, Sumiaki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2003154767 A2 20030527, 18 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-353319 20011119.

AB The plate has an image receiving layer contg. an inorg. pigment and a **hydrophilic** binder R1m(OR2)3-mSi(CH2)nS[CHR3CR4(LY)] (R1-4 = H, C1-8 hydrocarbyl; m = 0-2; n = 1-8; L = bond, org. linkage; Y = NHCOR5, CONH2, CONR52, COR5, OH, CO2M, SO3M; R5 = C1-8 alkyl, M = H, alkali metal, alk. earth metal, onium) on a water resistant support. The image receiving layer shows good water retentivity, adhesion with the support, and printing without background stain is obtained.

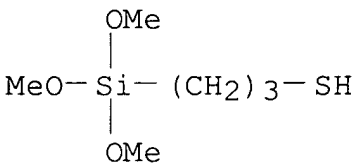
IT **444336-22-5**
(**lithog. printing plate** with image receiving layer contg. pigment and silane coupling agent-terminated vinyl copolymer)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

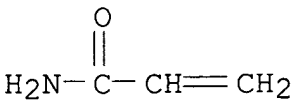


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41N001-14
ICS B41M005-00
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38
ST **lithog printing plate** image receiving layer pigment; vinyl copolymer silane coupling agent terminated
IT Silica gel, uses
(Sylysia 430; **lithog. printing plate** with image receiving layer contg. pigment and silane coupling agent-terminated vinyl copolymer)
IT Ink-jet **printing**
(**lithog. printing plate** formed by ink-jet printing method)
IT **Lithographic plates**
(**lithog. printing plate** with image receiving layer contg. pigment and silane coupling agent-terminated vinyl copolymer)
IT 7631-86-9, Snowtex C, uses
(colloidal; **lithog. printing plate** with image receiving layer contg. pigment and silane coupling agent-terminated vinyl copolymer)
IT 28062-60-4P, Acrylic acid-dodecyl methacrylate copolymer 139357-99-6P, Dodecyl methacrylate-octadecyl methacrylate-vinyl acetate copolymer
(ink-jet printing ink for manuf. of **lithog. printing plate**)
IT **444336-22-5**
(**lithog. printing plate** with image receiving layer contg. pigment and silane coupling agent-terminated vinyl copolymer)
IT 1344-28-1, Alumina, uses 13463-67-7, Titania, uses
(sol; **lithog. printing plate** with image receiving layer contg. pigment and silane coupling agent-terminated vinyl copolymer)

L37 ANSWER 9 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:56057 Document No. 138:108337 Polymer compound containing silicon ester moiety, its preparation and composition for treating an inorganic substrate for aqueous dispersions. Brown, Ward Thomas (Rohm and Haas Company, USA). Eur. Pat. Appl. EP 1277766 A2 20030122, 11 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR,

GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK. (English). CODEN: EPXXDW. APPLICATION: EP 2002-254931 20020712. PRIORITY: US 2001-PV306929 20010620; US 2002-PV386730 20020610.

AB The Si ester moiety is located at an end of the polymer compd. The polymer compd. is based on ethylenically unsatd. monomer and .gtoreq.1 functional group that is pendant to the polymer backbone of the polymer compd. The polymer compd. is useful for modifying the surface properties of inorg. substrates. An example polymer was the polymer of Me methacrylate 12.5, hydroxyethyl methacrylate 12.5, and 3-mercaptopropyltrimethoxysilane 0.77 g having pendant aldehyde and alc. groups for (**hydrophilic**) modifying inorg. substrates.

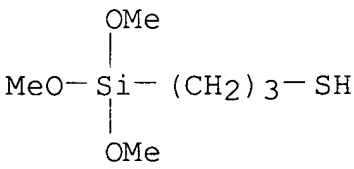
IT **485804-57-7DP**, oxidated **485804-59-9P**
(**hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)

RN 485804-57-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-hydroxyethyl ester, telomer with methyl 2-methyl-2-propenoate and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

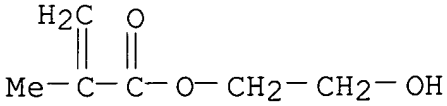


CM 2

CRN 26355-01-1
CMF (C6 H10 O3 . C5 H8 O2)x
CCI PMS

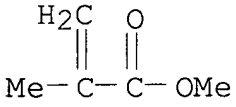
CM 3

CRN 868-77-9
CMF C6 H10 O3



CM 4

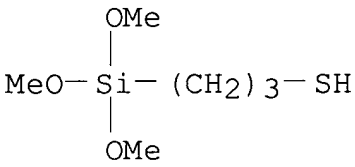
CRN 80-62-6
CMF C5 H8 O2



RN 485804-59-9 HCAPLUS
CN Butanoic acid, 3-oxo-, 2-[(2-methyl-1-oxo-2-propenyl)oxy]ethyl ester, telomer with 2-hydroxyethyl 2-propenoate and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

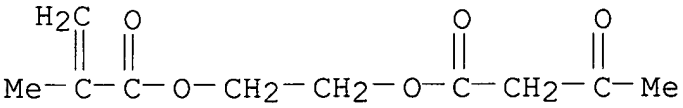


CM 2

CRN 485804-58-8
CMF (C10 H14 O5 . C5 H8 O3)x
CCI PMS

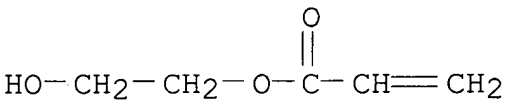
CM 3

CRN 21282-97-3
CMF C10 H14 O5



CM 4

CRN 818-61-1
CMF C5 H8 O3



IC ICM C08F002-38
ICS C09C003-12
CC 42-6 (Coatings, Inks, and Related Products)
IT Pigments, nonbiological
(**hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)
IT 13463-67-7, Titania, uses
(coated; **hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)
IT 485804-62-4P
(dispersion polymer composite; **hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)
IT 483339-88-4, Rhoshield 3188
(dispersion polymer composite; **hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)
IT 485804-61-3P
(**hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)
IT **485804-57-7DP**, oxidated **485804-59-9P**
(**hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)
IT 123-08-0, 4-Hydroxybenzaldehyde 30674-80-7, 2-Isocyanatoethyl methacrylate
(**hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq.

dispersions)

IT 1314-13-2, Zinc oxide, uses 7429-90-5, Aluminum, uses 7439-89-6, Iron, uses 7439-92-1, Lead, uses 7440-21-3, Silicon, uses 7440-31-5, Tin, uses 7440-32-6, Titanium, uses 7440-47-3, Chromium, uses 7440-67-7, Zirconium, uses 7631-86-9, Silica, uses
(**hydrophilic** polymer compd. contg. silicon ester terminal groups for treating an inorg. substrate for aq. dispersions)

L37 ANSWER 10 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:963712 Document No. 138:47359 Planographic **printing plate** precursor, substrate, and surface **hydrophilic** material. Yamasaki, Sumiaki; Kawamura, Koichi; Makino, Naonori (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1266767 A2 20021218, 67 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2002-12455 20020611. PRIORITY: JP 2001-175952 20010611; JP 2001-175953 20010611; JP 2001-175954 20010611; JP 2001-175955 20010611; JP 2001-269833 20010906.

AB A planog. **printing plate** precursor comprises a substrate, e.g. Al, having a **hydrophilic** layer which includes **hydrophilic** graft chains and a crosslinked structure formed through hydrolytic polycondensation of an alkoxide selected from Si, Ti, Zr and Al. A **hydrophilic** surface is formed by a **hydrophilic** polymer including a functional group that chem. bonds to the Al substrate directly or is chem. bindable to the Al substrate by a structural component having a crosslinking structure. The precursor is also enhanced by an image-forming layer and a compd. that forms a hydrophobic surface region. Thus, a **hydrophilic** coating compn. of polyacrylamide having terminal mercaptopropyltrimethoxysilane groups 0.21, tetramethoxysilane 0.62, EtOH 4.70, H2O 4.70, and nitric acid soln. (1N) 0.10 g was applied to Al substrate and dried at 100.degree. for 10 min giving a surface with water contact angle 7.9.degree..

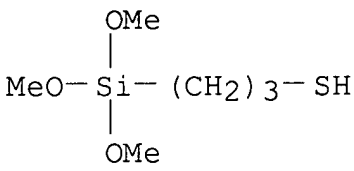
IT **444336-22-5P 457886-77-0P**
(**hydrophilic** layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

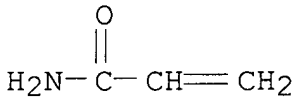


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

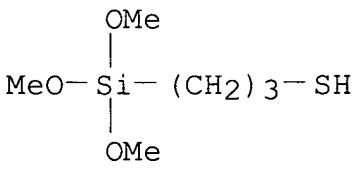
CRN 79-06-1
CMF C3 H5 N O



RN 457886-77-0 HCAPLUS
CN Acetamide, N-ethenyl-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

CRN 28408-65-3
CMF (C4 H7 N O)x
CCI PMS

CM 3

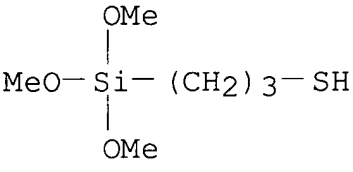
CRN 5202-78-8
CMF C4 H7 N O

IT **444336-25-8 478364-45-3 478364-46-4**
478364-47-5 478364-48-6 478364-50-0
478364-52-2
(**hydrophilic** layer; planog. **printing**
plate precursor having surface **hydrophilic**
material and bound by a crosslinked alkoxide for nonstaining high quality prints)

RN 444336-25-8 HCAPLUS
CN 2-Propenamide, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



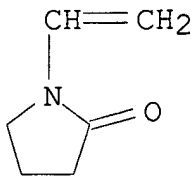
CM 2

CRN 26124-23-2
CMF (C6 H9 N O . C3 H5 N O)x
CCI PMS

CM 3

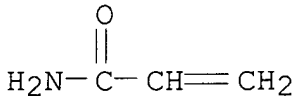
CRN 88-12-0

CMF C6 H9 N O



CM 4

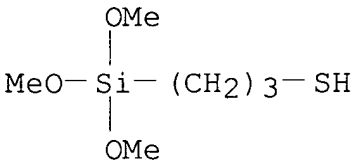
CRN 79-06-1
CMF C3 H5 N O



RN 478364-45-3 HCAPLUS
CN Methanaminium, N,N,N-trimethyl-, salt with 2-(ethenylamino)-1,1-dimethyl-2-oxoethanesulfonic acid (1:1), telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

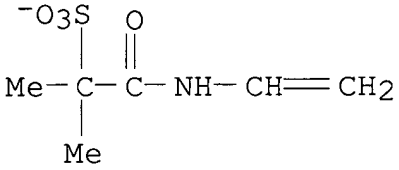
CRN 478364-44-2
CMF (C6 H10 N O4 S . C4 H12 N)x
CCI PMS

CM 3

CRN 478364-43-1
CMF C6 H10 N O4 S . C4 H12 N

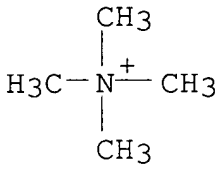
CM 4

CRN 478364-42-0
CMF C6 H10 N O4 S



CM 5

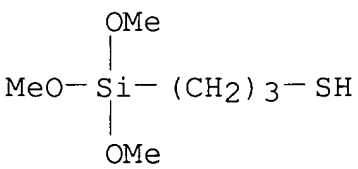
CRN 51-92-3
CMF C4 H12 N



RN 478364-46-4 HCAPLUS
CN 2-Propenamide, N-(hydroxymethyl)-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

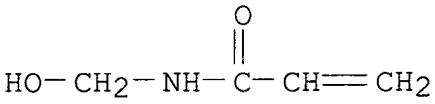


CM 2

CRN 26374-25-4
CMF (C4 H7 N O2)x
CCI PMS

CM 3

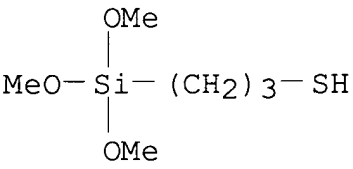
CRN 924-42-5
CMF C4 H7 N O2



RN 478364-47-5 HCAPLUS
CN 2-Propenamide, N-(2-amino-2-oxoethyl)-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

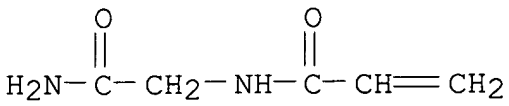


CM 2

CRN 25987-89-7
CMF (C5 H8 N2 O2)x
CCI PMS

CM 3

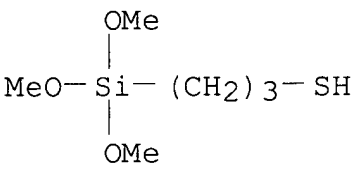
CRN 2479-62-1
CMF C5 H8 N2 O2



RN 478364-48-6 HCAPLUS
CN Glycine, N-(1-oxo-2-propenyl)-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

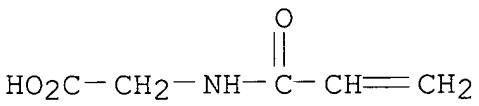


CM 2

CRN 30602-14-3
CMF (C5 H7 N O3)x
CCI PMS

CM 3

CRN 24599-25-5
CMF C5 H7 N O3

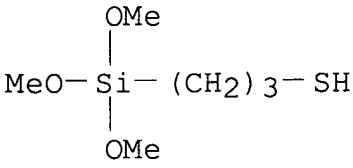


RN 478364-50-0 HCAPLUS
CN 2-Propenamide, N-(2-amino-2-oxoethyl)-, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0

CMF C6 H16 O3 S Si

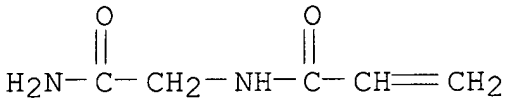


CM 2

CRN 478364-49-7
CMF (C6 H9 N O . C5 H8 N2 O2)x
CCI PMS

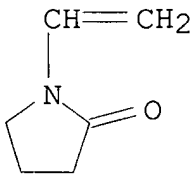
CM 3

CRN 2479-62-1
CMF C5 H8 N2 O2



CM 4

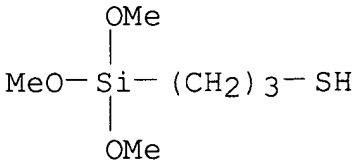
CRN 88-12-0
CMF C6 H9 N O



RN 478364-52-2 HCAPLUS
CN Glycine, N-(1-oxo-2-propenyl)-, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

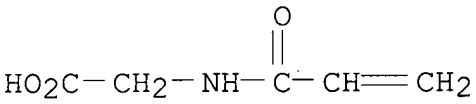


CM 2

CRN 116242-11-6
CMF (C6 H9 N O . C5 H7 N O3)x
CCI PMS

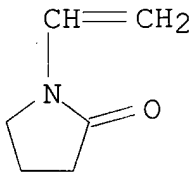
CM 3

CRN 24599-25-5
CMF C5 H7 N O3



CM 4

CRN 88-12-0
CMF C6 H9 N O



IC ICM B41N003-03
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 42

ST planog **printing plate** precursor image layer org inorg composite

IT Coating materials
(**hydrophilic** coatings; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT Phenolic resins, uses
(novolak, microcapsules for image forming layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT **Printing plates**
(planog.; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT Polyesters, miscellaneous
(**plate** substrate; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT 357418-49-6P, Allyl methacrylate-butyl methacrylate-trimethylolpropanediacrylate-xylylene diisocyanate copolymer
(crosslinked microcapsules for image forming layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT **444336-22-5P 457886-77-0P**
(**hydrophilic** layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT 31343-95-0 **444336-25-8 478364-45-3 478364-46-4 478364-47-5 478364-48-6 478364-50-0 478364-52-2**
(**hydrophilic** layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT 9002-89-5, Poly(vinyl alcohol) 9003-01-4, Poly(acrylic acid)
(in image forming layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

IT 96542-40-4, Acrylonitrile-2-hydroxyethyl methacrylate-p-hydroxyphenyl methacrylamide-methacrylic acid-methyl methacrylate copolymer 215958-19-3 265316-79-8
(in image forming layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound

by a crosslinked alkoxide for nonstaining high quality prints)
IT 444189-94-0P, Ethyl acrylate-ethyl methacrylate-methacrylic acid-vinyltoluene copolymer 478658-86-5DP, Burnock DN 9180-2,2-bis(hydroxymethyl)propionic acid copolymer, blocked
(microcapsules for image forming layer; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)
IT 9003-53-6, Polystyrene
(planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)
IT 681-84-5, Tetramethoxysilane 211308-94-0
(planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)
IT 7429-90-5, Aluminum, miscellaneous 25038-59-9, Poly(ethylene terephthalate), miscellaneous
(**plate** substrate; planog. **printing plate** precursor having surface **hydrophilic** material and bound by a crosslinked alkoxide for nonstaining high quality prints)

L37 ANSWER 11 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:921774 Document No. 138:30984 Electrophotographic liquid developers for making electrophotographic **printing plates**. Kato, Eiichi (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002351156 A2 20021204, 41 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-159138 20010528.
AB The title developer contains dispersed resin particles, which are prepd. from monomers in an aprotic solvent in the presence of dispersion-stabilizing resin, in an aprotic solvent of .gtoreq.109 .OMEGA..cntdot.cm and of .ltoreq.3.5 dielec. const., wherein the dispersed resin particles are made of monomers: a monomer having a functional group, which is sol. in an aprotic solvent and becomes insol. in the solvent after the polymn.; a monomer having -N(R1)(R2) group (R1-2 = H, C1-22 hydrocarbon); a monomer having an acidic group chosen from -PO3H2, -SO3H, and -SO2H; and a macromonomer, which has a main chain contg. repeating unit CH(a1)=C(a2)(-U0-D0) (U0 = -COO-, -OCO-,-O-, etc.; a1-2 = H, halo, cyano, etc.; D0 = C8-22 hydrocarbon, C.gtoreq.8 -(A1-B1)m-(A2-B2)n-D21; D21 = H, C1-22 hydrocarbon; B1-2 = -O-, -CO-, -CO2-, etc.; m, n = 0-4 integer; A1-2 = -CH(-B3-(A4-B4)p-D23)-; B3-4 = -O-, -CO-, -CO2-, etc.; A4 = C1-18 hydrocarbon; D23 = H, C1-22 hydrocarbon; p = 0-4 integer), wherein the dispersion stabilizing resin is made of a star burst polymer, which has .gtoreq.3 A-B block polymer chains connected to a core org. group and 2X104-1X106 wt. av. mol. wt. The block A is made of a monomer having a functional group, which is sol. in an aprotic

solvent and becomes insol. in the solvent after the polymn. and a monomer having polar group chosen from phosphono, carboxyl, sulfo, hydroxyl, formyl, amino, -P(=O)(OH)E1 (E1 = hydrocarbon, oxyhydrocarbon), and cyclic acid anhydride. The block B has [-CH(b1)-C(B2)(A-L)]- (A = -COO-, -(CH2)xCOO-, -(CH2)xOCO- (x = 1-3 integer), etc. L = C.gtoreq.8 aliph., B1-2 = H, halo, cyano, C1-7 hydrocarbon, etc.). The development soln. provides the shorten process time for developing and fixing and shows the good development characteristics for large-size offset master **printing plates.**

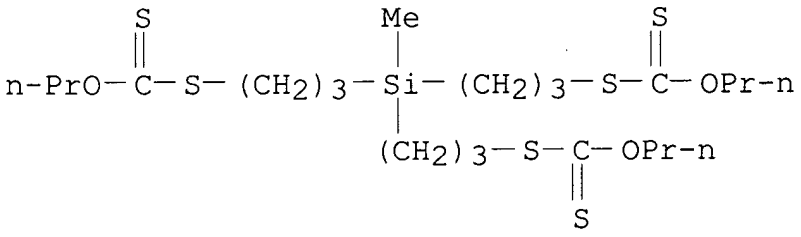
IT **477874-06-9P 477874-10-5P 477874-12-7P**
477874-13-8P 477874-14-9P 477874-15-0P
477874-16-1P 477874-20-7P
(electrophotog. liq. developers for developing offset master plates)

RN 477874-06-9 HCAPLUS

CN 2-Propenoic acid, ethyl ester, polymer with ethenyl acetate, hexadecyl 2-propenoate and O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate, graft (9CI) (CA INDEX NAME)

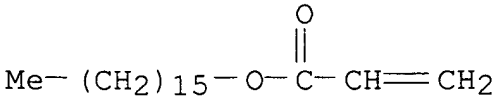
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



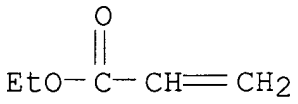
CM 2

CRN 13402-02-3
CMF C19 H36 O2



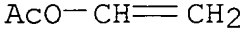
CM 3

CRN 140-88-5
CMF C5 H8 O2



CM 4

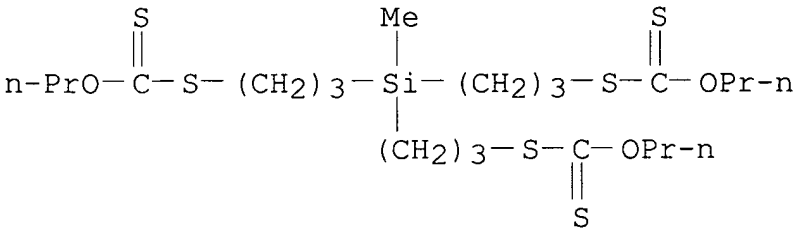
CRN 108-05-4
CMF C4 H6 O2



RN 477874-10-5 HCAPLUS
CN 2-Propenoic acid, polymer with ethenyl acetate, octadecyl 2-propenoate and O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate, graft (9CI) (CA INDEX NAME)

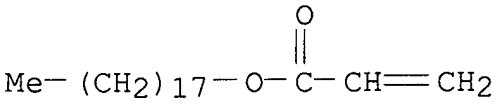
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



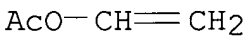
CM 2

CRN 4813-57-4
CMF C21 H40 O2



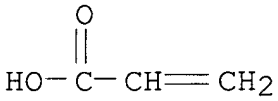
CM 3

CRN 108-05-4
CMF C4 H6 O2



CM 4

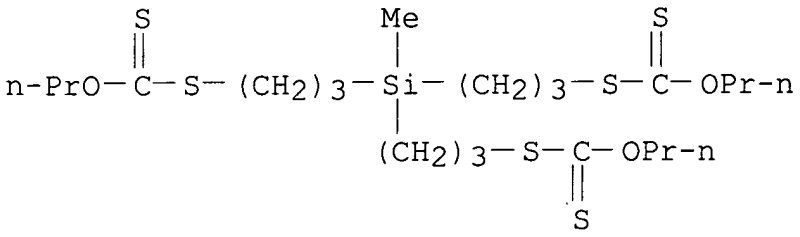
CRN 79-10-7
CMF C3 H4 O2



RN 477874-12-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, eicosyl ester, polymer with heptyl 2-methyl-2-propenoate, 2-propenoic acid and O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate, graft (9CI) (CA INDEX NAME)

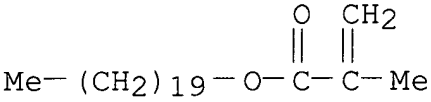
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



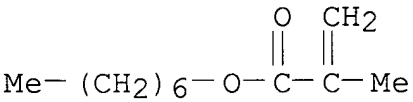
CM 2

CRN 45294-18-6
CMF C24 H46 O2



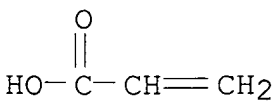
CM 3

CRN 5459-37-0
CMF C11 H20 O2



CM 4

CRN 79-10-7
CMF C3 H4 O2

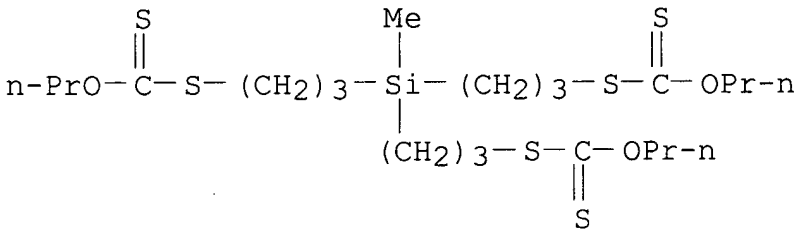


RN 477874-13-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with heneicosyl

2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, methyl 2-propenoate and O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate, graft (9CI) (CA INDEX NAME)

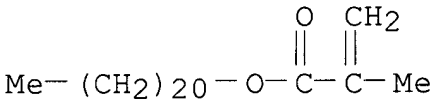
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



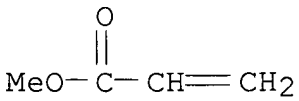
CM 2

CRN 45296-31-9
CMF C25 H48 O2



CM 3

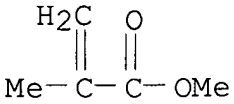
CRN 96-33-3
CMF C4 H6 O2



CM 4

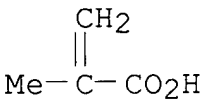
CRN 80-62-6

CMF C5 H8 O2



CM 5

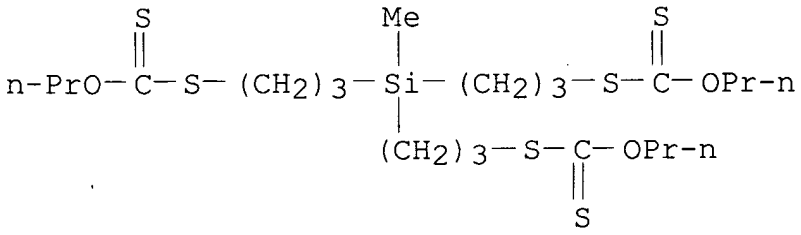
CRN 79-41-4
CMF C4 H6 O2



RN 477874-14-9 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, polymer with heneicosyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-phosphonoethyl 2-methyl-2-propenoate and O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate, graft (9CI) (CA INDEX NAME)

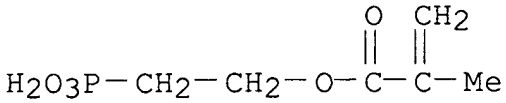
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



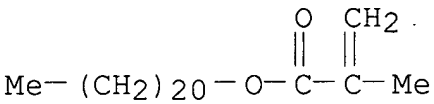
CM 2

CRN 80730-17-2
CMF C6 H11 O5 P



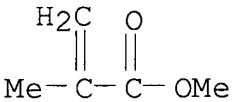
CM 3

CRN 45296-31-9
CMF C25 H48 O2



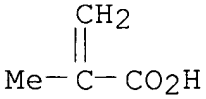
CM 4

CRN 80-62-6
CMF C5 H8 O2



CM 5

CRN 79-41-4
CMF C4 H6 O2

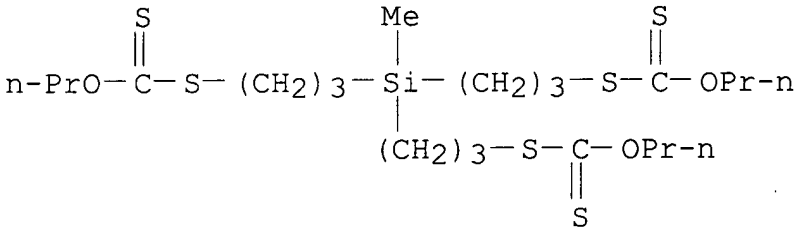


RN 477874-15-0 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, polymer with ethyl 2-propenoate, methyl 2-methyl-2-propenoate, octadecyl 2-methyl-2-propenoate, O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate and tetradecyl 2-methyl-2-propenoate, graft

(9CI) (CA INDEX NAME)

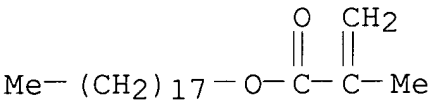
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



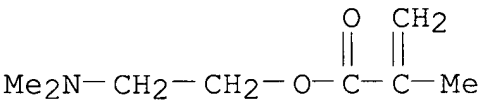
CM 2

CRN 32360-05-7
CMF C22 H42 O2



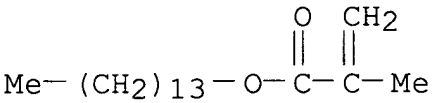
CM 3

CRN 2867-47-2
CMF C8 H15 N O2



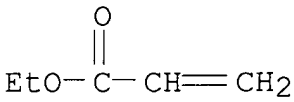
CM 4

CRN 2549-53-3
CMF C18 H34 O2



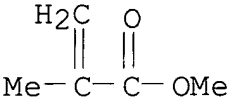
CM 5

CRN 140-88-5
CMF C5 H8 O2



CM 6

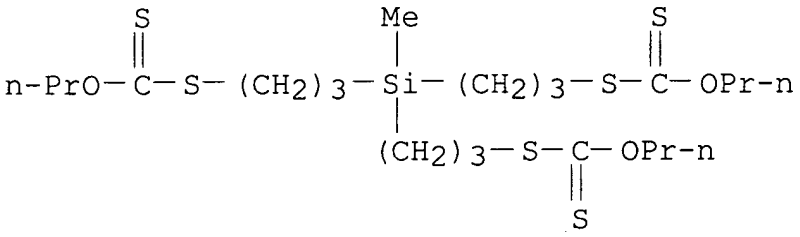
CRN 80-62-6
CMF C5 H8 O2



RN 477874-16-1 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, octadecyl ester, polymer with ethenyl acetate, methoxyethene, O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate and undecyl 2-propenoate, graft (9CI) (CA INDEX NAME)

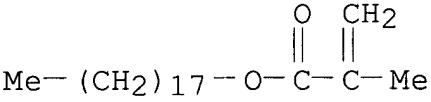
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



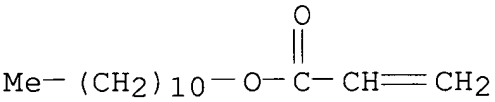
CM 2

CRN 32360-05-7
CMF C22 H42 O2



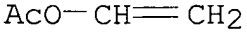
CM 3

CRN 20690-61-3
CMF C14 H26 O2



CM 4

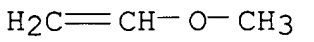
CRN 108-05-4
CMF C4 H6 O2



CM 5

CRN 107-25-5

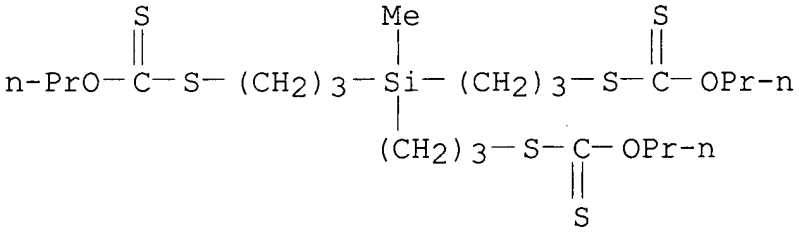
CMF C3 H6 O



RN 477874-20-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, ethyl ester, polymer with N,N-dimethyl-2-propenamide, octadecyl 2-propenoate and O-propyl 6-methyl-6-[3-[(propoxythioxomethyl)thio]propyl]-11-thioxo-12-oxa-2,10-dithia-6-silapentadecanethioate, graft (9CI) (CA INDEX NAME)

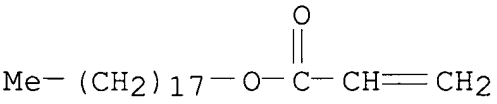
CM 1

CRN 159967-44-9
CMF C22 H42 O3 S6 Si



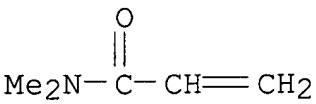
CM 2

CRN 4813-57-4
CMF C21 H40 O2



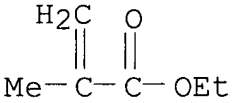
CM 3

CRN 2680-03-7
CMF C5 H9 N O



CM 4

CRN 97-63-2
CMF C6 H10 O2



IC ICM G03G009-13
ICS G03G009-12
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT Electrophotographic developers
Printing plates
(electrophotog. liq. developers for developing offset master plates)
IT 138005-14-8DP, 2,3-Hexanoyloxypropyl methacrylate homopolymer, carboxy-terminated, ester with glycidyl methacrylate 139104-87-3P, Dodecyl methacrylate/3-Mercaptopropionic acid telomer, ester with glycidyl methacrylate 139104-90-8P, Hexadecyl methacrylate/3-Mercaptopropionic acid telomer, ester with glycidyl methacrylate 139105-08-1P, Octadecyl methacrylate/3-Mercaptopropionic acid telomer, ester with glycidyl methacrylate 139105-12-7P, Tridecyl methacrylate/3-Mercaptopropionic acid telomer, ester with glycidyl methacrylate 141414-99-5P 141415-02-3P 161641-24-3P, Styrene-4-hydroxystyrene-tetradecyl methacrylate copolymer 164848-45-7P, Octadecyl acrylate-3-Mercaptopropionic acid telomer, ester with glycidyl methacrylate 215877-54-6P, Tetradecyl methacrylate/thioethanol telomer, ester with 2-carboxyethyl acrylate 215877-61-5P, Eicosyl methacrylate-thioethanol telomer, .alpha.-chloroacrylic acid ester 217076-83-0P 217076-85-2P, Dodecyl methacrylate-octadecyl methacrylate-thioethanol telomer, cyanoacrylic acid ester 320784-98-3P, Methyl methacrylate-methyl acrylate-2-(N,N-Dimethylamino)ethyl methacrylate-2-phosphonoethyl methacrylate-eicosyl methacrylate graft copolymer 333362-05-3P 333362-09-7P 333362-15-5P 477873-89-5P 477873-90-8P 477873-91-9P 477873-93-1P 477873-94-2P 477873-96-4P 477873-97-5P 477873-99-7P 477874-00-3P 477874-01-4P

477874-02-5P 477874-03-6P 477874-04-7P 477874-05-8P
477874-06-9P 477874-10-5P 477874-11-6P
477874-12-7P 477874-13-8P 477874-14-9P
477874-15-0P 477874-16-1P 477874-17-2P
477874-18-3P **477874-20-7P** 477874-21-8P 477874-23-0P
477874-24-1P 477874-25-2P, Methyl methacrylate-methyl acrylate-2-(N,N-Dimethylamino)ethyl methacrylate-2-phosphonoethyl methacrylate-octadecyl methacrylate graft copolymer 477874-26-3P
477874-27-4P 477874-28-5P 477874-29-6P 477874-30-9P, Methyl methacrylate-methyl acrylate-2-(N,N-Dimethylamino)ethyl methacrylate-2-phosphonoethyl methacrylate-tetradecyl methacrylate graft copolymer 477874-31-0P, Methyl methacrylate-methyl acrylate-2-(N,N-Dimethylamino)ethyl methacrylate-2-phosphonoethyl methacrylate-dodecyl methacrylate-octadecyl acrylate graft copolymer
477874-32-1P 477874-33-2P 477874-34-3P 477874-35-4P
477874-36-5P 477874-37-6P 477874-38-7P 477874-40-1P
477874-41-2P 477874-43-4P 477874-44-5P 477874-46-7P, Methyl methacrylate-methyl acrylate-2-(N,N-diethylamino)ethyl acrylate-3-phosphonopropyl methacrylate-tetradecyl methacrylate graft copolymer 477881-08-6P, Tetradecyl methacrylate-thioethanol telomer, ester with 4-carboxystyrene
(electrophotog. liq. developers for developing offset master plates)

L37 ANSWER 12 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:686344 Document No. 137:239732 **Lithographic printing plate** precursor having image forming layer made of organic-inorganic composite materials. Hoshi, Satoshi; Kawamura, Koichi; Yamazaki, Sumiaki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002254842 A2 20020911, 21 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-62271 20010306.

AB The title **lithog. printing plate** precursor has a **hydrophilic** image-forming layer, which becomes hydrophobic by light and is made of a hydrophobic material precursor and an org.-inorg. composite material and contains a light-to-heat converting agent in the image-forming layer or a layer next to image-forming layer, wherein the org.-inorg. composite material is a mixt. contg. a metal coordination compd. and an org. **hydrophilic** resin. The printing precursor is fixed in a printer without post-treatment of the exposure and provides **printing plate** of the high printing durability and the good ink soil-resistance.

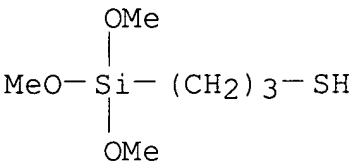
IT **444336-22-5 457886-77-0**
(org.-inorg. composite material in **lithog. printing plate** precursor)

RN 444336-22-5 HCAPLUS
CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI)

(CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

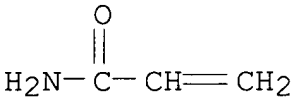


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

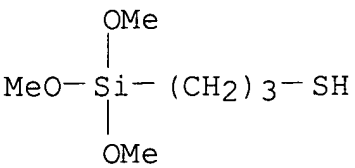
CRN 79-06-1
CMF C3 H5 N O



RN 457886-77-0 HCAPLUS
CN Acetamide, N-ethenyl-, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

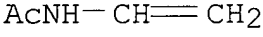


CM 2

CRN 28408-65-3
CMF (C4 H7 N O)x
CCI PMS

CM 3

CRN 5202-78-8
CMF C4 H7 N O



IC ICM B41N001-14
ICS G03F007-00; G03F007-004; G03F007-075; G03F007-11
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST **lithog printing plate** precursor image layer org inorg composite
IT **Lithographic plates**
(**lithog. printing plate** precursor having image forming layer made of org. inorg. composite materials)
IT 681-84-5, Tetramethoxysilane 5593-70-4, Tetrabutyltitanate 9002-89-5, PVA 117 9003-05-8, Polyacrylamide 13822-56-5, Aminopropyltrimethoxysilane 22829-17-0, Ammonium zirconium carbonate 23072-32-4, Diisopropoxybis(2,4-pentanedionato)titanium 31343-95-0 155476-65-6, Aluminum(1+), (ethyl acetate-.kappa.O')bis(2-propanolato)- **444336-22-5** **457886-77-0** 457886-79-2 457886-81-6
(org.-inorg. composite material in **lithog. printing plate** precursor)

L37 ANSWER 13 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:573345 Document No. 137:125820 Silane coupling group-terminated **hydrophilic** polymer and **lithographic printing plate** base. Yamasaki, Sumiaki; Kawamura,

Koichi (Fuji Photo Film Co., Ltd., Japan). Eur. Pat. Appl. EP 1226976 A1 20020731, 31 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2002-1119 20020124. PRIORITY: JP 2001-15912 20010124; JP 2001-18889 20010126.

AB A polymer compd. includes (i) a polymn. unit represented by [CHR3CR4(L1Y1)]x[CHR5CR6(-L2-Y2)]y and (ii) a silane coupling group represented by S(CH2)nSi(R1)m(OR2)3-m, as a terminal of the polymer, wherein R1, R2, R3, R4, R5, R6 each independently represents a hydrogen atom or a hydrocarbon group having 1 to 8 carbon atoms; n is 1-8; m is 0-2; x is 1-100 mol%, y is 0-99 mol%, L1, L2 are single bonds or org. connecting groups; Y1 and Y2 are amino, hydroxy, amido, ether, acid, salt, etc. The polymers are useful as **lithog. printing plate** base. A silane-terminated polymer was prepd. by polymn. of acrylamide in the presence of mercaptopropyltrimethoxysilane and 2,2-azobis(2,4-dimethylvaleronitrile).

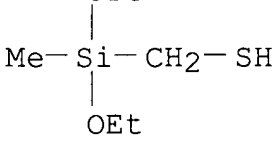
IT **444336-23-6P 444336-24-7P 444336-25-8P**
(silane coupling group-terminated **hydrophilic** polymer and **lithog. printing plate** base)

RN 444336-23-6 HCAPLUS

CN 2-Propenamide, telomer with (diethoxymethylsilyl)methanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 55161-63-2
CMF C6 H16 O2 S Si



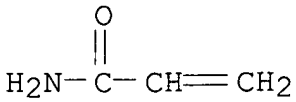
CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1

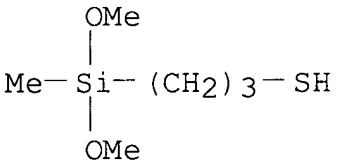
CMF C3 H5 N O



RN 444336-24-7 HCAPLUS
CN 2-Propenoic acid, telomer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si

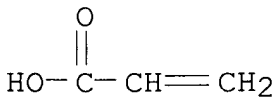


CM 2

CRN 9003-01-4
CMF (C3 H4 O2)x
CCI PMS

CM 3

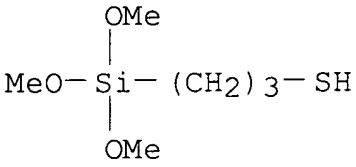
CRN 79-10-7
CMF C3 H4 O2



RN 444336-25-8 HCAPLUS
CN 2-Propenamide, telomer with 1-ethenyl-2-pyrrolidinone and 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

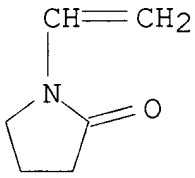


CM 2

CRN 26124-23-2
CMF (C6 H9 N O . C3 H5 N O)x
CCI PMS

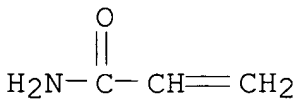
CM 3

CRN 88-12-0
CMF C6 H9 N O



CM 4

CRN 79-06-1
CMF C3 H5 N O

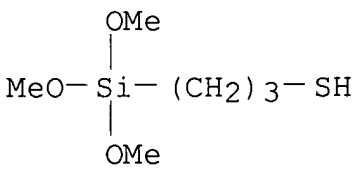


IT **444336-22-5P**
(silane coupling group-terminated **hydrophilic** polymer and **lithog. printing plate** base)
RN 444336-22-5 HCAPLUS

CN 2-Propenamide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

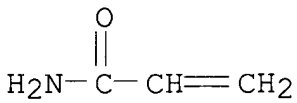


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM B41N003-03
ICS B41C001-10; C08F002-38
CC 37-3 (Plastics Manufacture and Processing)
Section cross-reference(s): 74
ST silane coupling terminated **hydrophilic** polymer **lithog printing plate**
IT Silica gel, uses
(functional polymer surface-modified; silane coupling group-terminated **hydrophilic** polymer and **lithog**. **printing plate** base)
IT **Lithographic** plates
(silane coupling group-terminated **hydrophilic** polymer and **lithog. printing plate** base)
IT **444336-23-6P 444336-24-7P 444336-25-8P**

(silane coupling group-terminated **hydrophilic** polymer and **lithog. printing plate** base)

IT **444336-22-5P**
(silane coupling group-terminated **hydrophilic** polymer and **lithog. printing plate** base)

L37 ANSWER 14 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:349156 Document No. 134:354597 Antifogging acrylic compositions and coated plastic moldings. Kawai, Osamu (Mitsubishi Rayon Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001131445 A2 20010515, 10 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-309421 19991029.

AB The compns. comprise (A) polyethylene glycol di(meth)acrylates 10-80, (B) H2C:CR1CO2(CH2)iOCOCR1:CH2 (R1 = H, Me; i = 2-10) 0.1-20, (C) copolymerizable **hydrophilic** monomers 0.1-40, (D) colloidal silica [treated with (meth)acryl-contg. silane hydrolyzates and non-functional **hydrophilic** silane hydrolyzates on the surface] 0.1-60 (A + B + C + D = 100), (E) nonionic surfactants (HLB 6-11) 0.1-10, (F) anionic surfactants 0.1-5, and (G) polymn. initiators 0.01-10 parts. Thus, colloidal silica (IPA ST) was treated with dimethylacrylamide-.gamma.-mercaptopropyltrimethoxysilane (I; KBM 803) reaction product and polyethylene glycol diacrylate (II; NK Ester A 200)-I reaction product, hydrolyzed, mixed with II (NK Ester A 400), a nonionic surfactant (Emulgen 905; HLB 9.2), an anionic surfactant (LO 529), 1,6-hexanediol diacrylate, and an initiator, applied on a polycarbonate plate, and cured by UV irradn. to give a coating showing good adhesion, scratch and moisture resistance.

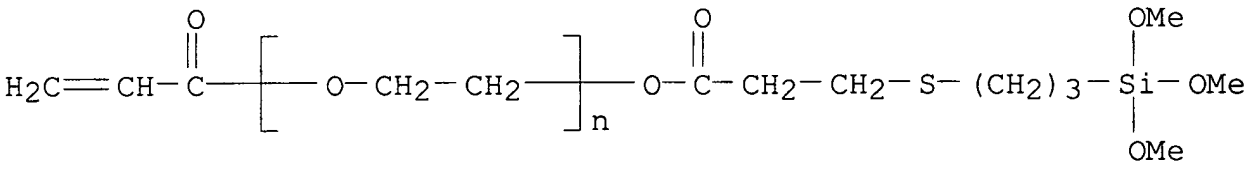
IT **339318-24-0P 339318-25-1P**
(antifogging acrylic coating compns. contg. surface modified silica)

RN 339318-24-0 HCAPLUS

CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with N,N-dimethyl-3-[[3-(trimethoxysilyl)propyl]thio]propanamide, .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[1-oxo-3-[[3-(trimethoxysilyl)propyl]thio]propoxy]poly(oxy-1,2-ethanediyl) and silica (9CI) (CA INDEX NAME)

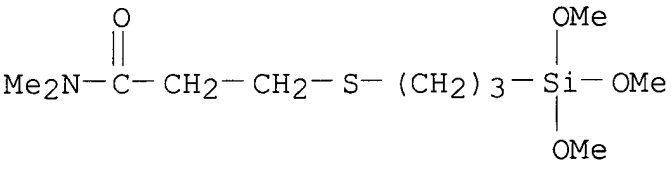
CM 1

CRN 339318-23-9
CMF (C2 H4 O)n C12 H22 O6 S Si
CCI PMS



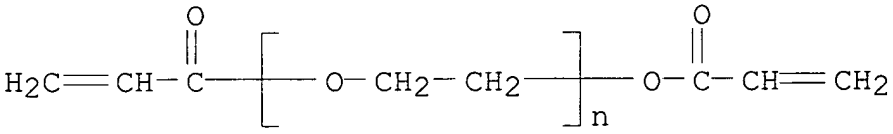
CM 2

CRN 87906-87-4
CMF C11 H25 N O4 S Si



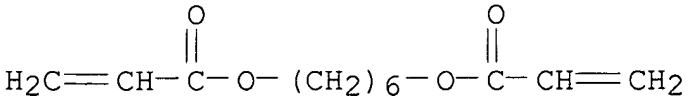
CM 3

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



CM 4

CRN 13048-33-4
CMF C12 H18 O4



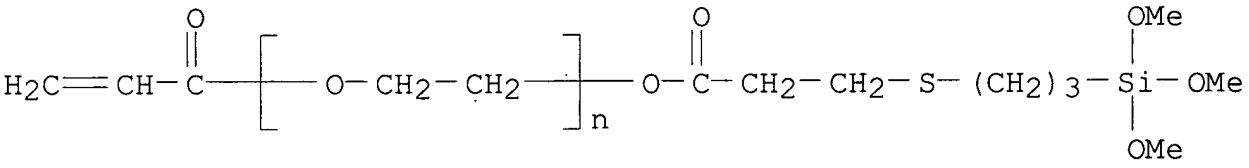
CM 5

CRN 7631-86-9
CMF O2 Si

RN 339318-25-1 HCAPLUS
CN 2-Propenoic acid, 1,6-hexanediyl ester, polymer with .alpha.-(1-oxo-2-propenyl)-.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl), .alpha.-(1-oxo-2-propenyl)-.omega.-[1-oxo-3-[[3-(trimethoxysilyl)propyl]thio]propoxy]poly(oxy-1,2-ethanediyl), 4-[1-oxo-3-[[3-(trimethoxysilyl)propyl]thio]propyl]morpholine and silica (9CI) (CA INDEX NAME)

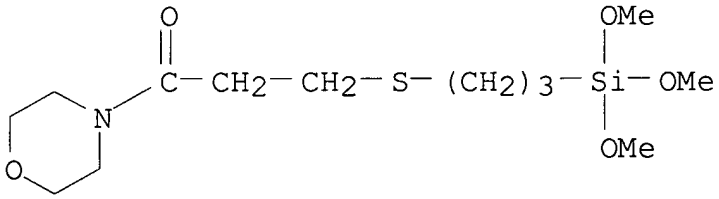
CM 1

CRN 339318-23-9
CMF (C2 H4 O)n C12 H22 O6 S Si
CCI PMS



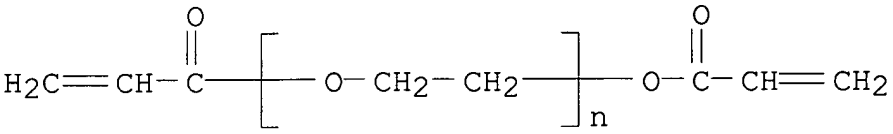
CM 2

CRN 339318-21-7
CMF C13 H27 N O5 S Si



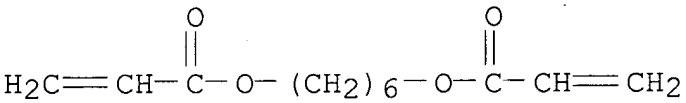
CM 3

CRN 26570-48-9
CMF (C2 H4 O)n C6 H6 O3
CCI PMS



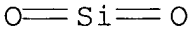
CM 4

CRN 13048-33-4
CMF C12 H18 O4



CM 5

CRN 7631-86-9
CMF O2 Si



IC ICM C09D004-02
ICS A63B071-10; B05D005-00; B05D007-02; B05D007-24; C08J007-04; C09D005-02; C08L101-00
CC 42-7 (Coatings, Inks, and Related Products)
IT **339318-24-0P 339318-25-1P**
(antifogging acrylic coating compns. contg. surface modified silica)

L37 ANSWER 15 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:806719 Document No. 130:67876 Process for preparing aqueous resin, aqueous curable resin composition, aqueous paint, and method for formation of coating therefrom. Kudo, Shin-ichi; Kinoshita, Hiroshi; Ooka, Masataka (Dainippon Ink and Chemicals, Inc., Japan).

PCT Int. Appl. WO 9855548 A1 19981210, 129 pp. DESIGNATED STATES: W: DE, KR, US. (Japanese). CODEN: PIXXD2. APPLICATION: WO 1998-JP2419 19980602. PRIORITY: JP 1997-143841 19970602; JP 1998-14706 19980128.

AB An aq. resin is prepd. by mixing a composite resin (C) comprising a polysiloxane segment (A) having .gtoreq.1 Si atom selected from the group consisting of a Si atom having .gtoreq.1 C.gtoreq.3 org. group and a hydrolyzable group and/or .gtoreq.1 OH group bonded together thereto, a Si atom having two Me and/or Et groups and one hydrolyzable or OH group bonded together thereto, and a Si atom having .gtoreq.1 triorganosiloxy group and .gtoreq.1 hydrolyzable and/or OH group bonded together thereto and a polymer segment (B) having .gtoreq.1 **hydrophilic** group selected from anionic, cationic and nonionic groups with a polysiloxane (D) having a hydrolyzable group bonded to a Si atom and/or a OH group bonded to a Si atom and contg. an indispensable structural unit of RSiO3 (R = Me, Et), optionally condensing a part of the mixt., and dispersing or dissolving the mixt. in an aq. medium. This resin combines excellent storage stability with excellent cold curability. The aq. curable resin compn. can provide a cured product which is excellent in not only durability, such as acid rain resistance and gloss retention at the time of exposure, but also contamination resistance upon being exposed to outdoors.

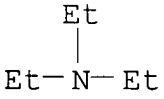
IT **217946-40-2P**, Acrylic acid-butyl acrylate-butyl methacrylate-2-hydroxyethyl methacrylate-3-mercaptopropyltrimethoxysilane-methyl methacrylate-styrene-phenyltrimethoxysilane copolymer triethylamine salt
(storage-stable aq. curable resins with excellent curability for antisoiling and weather-resistant coatings)

RN 217946-40-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with butyl 2-propenoate, ethenylbenzene, 2-hydroxyethyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 2-propenoic acid, trimethoxyphenylsilane and 3-(trimethoxysilyl)-1-propanethiol, compd. with N,N-diethylethanamine (9CI) (CA INDEX NAME)

CM 1

CRN 121-44-8
CMF C6 H15 N

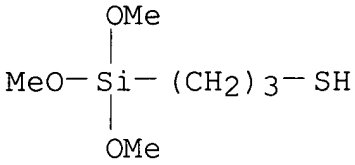


CM 2

CRN 217946-39-9
CMF (C9 H14 O3 Si . C8 H14 O2 . C8 H8 . C7 H12 O2 . C6 H16 O3 S Si . C6 H10 O3 . C5 H8 O2 . C3 H4 O2)x
CCI PMS

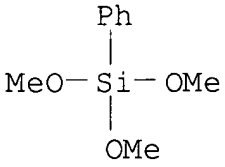
CM 3

CRN 4420-74-0
CMF C6 H16 O3 S Si



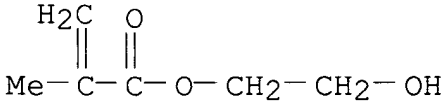
CM 4

CRN 2996-92-1
CMF C9 H14 O3 Si



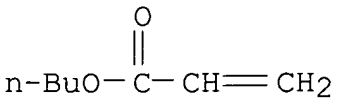
CM 5

CRN 868-77-9
CMF C6 H10 O3



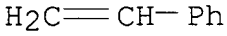
CM 6

CRN 141-32-2
CMF C7 H12 O2



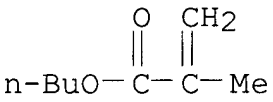
CM 7

CRN 100-42-5
CMF C8 H8



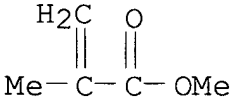
CM 8

CRN 97-88-1
CMF C8 H14 O2



CM 9

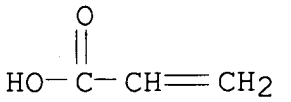
CRN 80-62-6
CMF C5 H8 O2



CM 10

CRN 79-10-7

CMF C3 H4 O2



IC ICM C08L083-04
ICS C08L083-14; C09D183-04; C09D183-14
CC 42-10 (Coatings, Inks, and Related Products)
IT **217946-40-2P**, Acrylic acid-butyl acrylate-butyl methacrylate-2-hydroxyethyl methacrylate-3-mercaptopropyltrimethoxysilane-methyl methacrylate-styrene-phenyltrimethoxysilane copolymer triethylamine salt 217946-42-4P 217946-46-8P 217946-48-0P 217946-50-4P 217946-52-6P, Cyclohexyltrimethoxysilane-methyltrimethoxysilane-chlorotrifluoroethene-ethyl vinyl ether-maleic acid monobutyl ester-vinyltris(2-methoxyethoxy)silane-dimethoxydimethylsilane-vinyl acetate copolymer triethylamine salt 217946-56-0P, 3-Aminopropyltrimethoxysilane-cyclohexyltrimethoxysilane-methyltrimethoxysilane-2,2-dimethyl-3-hydroxypropyl 2,2-dimethyl-3-hydroxypropionate-dimethoxydimethylsilane-N-methyldiethanolamine-isophorone diisocyanate copolymer acetic acid salt 217946-59-3P 217946-61-7P 217946-63-9P, Acrylic acid-butyl acrylate-butyl methacrylate-dimethoxydimethylsilane-3-(methacryloyloxy)propyltrimethoxysilane-methyl methacrylate-methyltrimethoxysilane-styrene-phenyltrimethoxysilane copolymer triethylamine salt 217946-66-2P, Acrylic acid-butyl acrylate-butyl methacrylate-dimethoxydimethylsilane-isobutyltrimethoxysilane-isobutyl methacrylate-3-(methacryloyloxy)propyltrimethoxysilane-methyltrimethoxysilane-methyl methacrylate copolymer triethylamine salt 217946-69-5P, Acrylic acid-butyl acrylate-butyl methacrylate-dimethoxydimethylsilane-2-hydroxyethyl methacrylate-3-(methacryloyloxy)propyltrimethoxysilane-methyl methacrylate-methyltrimethoxysilane-styrene-phenyltrimethoxysilane copolymer triethylamine salt 217946-71-9P, Acrylic acid-butyl acrylate-butyl methacrylate-dimethoxydimethylsilane-2-hydroxyethyl methacrylate-isobutyltrimethoxysilane-isobutyl methacrylate-3-(methacryloyloxy)propyltrimethoxysilane-methyl methacrylate-methyltrimethoxysilane copolymer triethylamine salt 217946-81-1P, Acrylic acid-butyl acrylate-butyl methacrylate-isobutyltrimethoxysilane-3-(methacryloyloxy)propyltrimethoxysilane-methyl methacrylate-methyltrimethoxysilane-styrene copolymer triethylamine salt 217946-83-3P, Acrylic acid-butyl acrylate-butyl methacrylate-dimethoxymethylphenylsilane-3-(methacryloyloxy)propyltrimethoxysilane-methyl methacrylate-methyltrimethoxysilane-styrene copolymer triethylamine salt

217946-85-5P, Acrylic acid-butyl acrylate-butyl methacrylate-cyclohexylmethyldimethoxysilane-3-(methacryloyloxy)propyltrimethoxysilane-methyl methacrylate-methyltrimethoxysilane-styrene copolymer triethylamine salt 217946-87-7DP, trimethylsilyl-terminated
(storage-stable aq. curable resins with excellent curability for antisoiling and weather-resistant coatings)

L37 ANSWER 16 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:509867 Document No. 125:222744 Purification of water-insoluble carboxyl-containing polymer by precipitation from a dispersant. Hayama, Kazuhide; Saitoh, Yukio; Kitani, Yasuo; Yamada, Katsuhiko (Mitsubishi Chemical Corporation, Japan). U.S. US 5543440 A 19960806, 6 pp. (English). CODEN: USXXAM. APPLICATION: US 1995-378715 19950126.

AB A water-insol. carboxyl-contg. polymer prepd. from .gtoreq.1 carboxyl-contg., unsatd. monomers and other unsatd. monomers in a **hydrophilic** org. solvent, useful as a base resin for cosmetics or a coating resin in contact with skin (no data), is purified by pptn. from an aq. soln.of a dispersant contg. a neutralized copolymer of R1CH=CR2COOH (R1 = H, CH3; R2 = H, CH3 and CH2COOH) and a (meth)acrylic ester without causing adhesion or agglomeration. Thus, 40% ethanol soln. of a 10:15:40:20:10:10 copolymer of acrylic acid (I), methacrylic acid (II), Bu methacrylate, lauryl methacrylate, Me methacrylate and polysiloxane macromer FM 0721 50 parts, contg. I 1400 and II 3500 ppm, was added into a mixt. of a 20 parts of 20% solids iso-Pr alc. soln. of 20:40:40 II-Me methacrylate-Et acrylate copolymer Na salt in 280 parts water at 50.degree. with stirring over 1 h, distd., cooled and dried to recover 19.5 parts of a powd. product having 500 .mu.m av. particle size and I and II content 30 and 70 ppm resp.

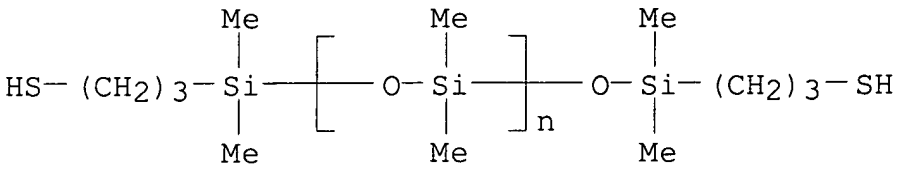
IT **181311-61-5P**
(purifn. of water-insol. carboxyl-contg. polymers by pptn. from a neutralized polymer dispersant soln.)

RN 181311-61-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with 1,1-dimethylethyl 2-propenoate, .alpha.-[(3-mercaptopropyl)dimethylsilyl]-.omega.-[[(3-mercaptopropyl)dimethylsilyl]oxy]poly[oxy(dimethylsilylene)], methyl 2-methyl-2-propenoate and 2-propenoic acid (9CI) (CA INDEX NAME)

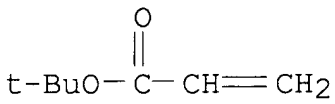
CM 1

CRN 162127-42-6
CMF (C2 H6 O Si)n C10 H26 O S2 Si2
CCI PMS



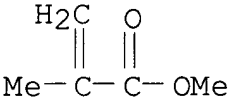
CM 2

CRN 1663-39-4
CMF C7 H12 O2



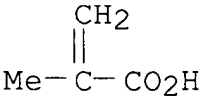
CM 3

CRN 80-62-6
CMF C5 H8 O2



CM 4

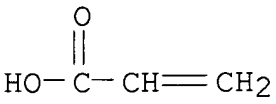
CRN 79-41-4
CMF C4 H6 O2



CM 5

CRN 79-10-7

CMF C3 H4 O2



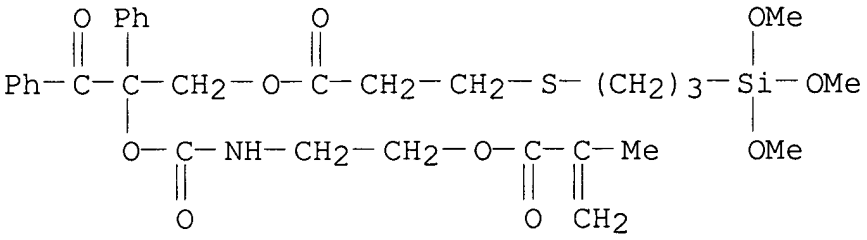
IC ICM C08F020-06
NCL 523103000
CC 35-3 (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 62
IT 79-10-7DP, Acrylic acid, polymers with acrylic compds. and ethylenically unsatd. siloxanes 79-41-4DP, Methacrylic acid, polymers with acrylic compds. and ethylenically unsatd. siloxanes 80-62-6DP, Methyl methacrylate, polymers with acrylic compds. and ethylenically unsatd. siloxanes 97-88-1DP, n-Butyl methacrylate, polymers with acrylic compds. and ethylenically unsatd. siloxanes 142-90-5DP, Lauryl methacrylate, polymers with acrylic compds. and ethylenically unsatd. siloxanes 585-07-9DP, tert-Butyl methacrylate, polymers with acrylic compds. and ethylenically unsatd. siloxanes 57998-21-7P **181311-61-5P**
(purifn. of water-insol. carboxyl-contg. polymers by pptn. from a neutralized polymer dispersant soln.)

L37 ANSWER 17 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1993:263907 Document No. 118:263907 Waterless presensitized **lithographic plate** with **printing** durability. Kokuni, Masahiro; Mori, Yoichi (Toray Industries, Japan). Jpn. Kokai Tokkyo Koho JP 04310953 A2 19921102 Heisei, 14 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-77910 19910410.
GI For diagram(s), see printed CA Issue.
AB In the **lithog.** plate comprising a substrate successively coated with a silicone rubber layer and a photosensitive layer, the photosensitive layer contains a polymer having structure I [R = Q1-3; R1 = H, C1-10 alkyl, C2-10 alkenyl, C6-10 aryl, aralkyl; one of R2-3 is polymer chain, the other is SiR5n(OR6)3-n (R5-6 = C1-10 alkyl, C2-10 alkenyl, C6-10 aryl); R4 = H, halo, C1-10 alkyl, alkoxy, acyloxy, C2-10 alkenyl, alkoxycarbonyl, C6-10 aryl; Z1-2 = C1-10 hydrocarbon chain, which may contain .gtoreq.1 of ester, ketone, ether, thioether, amine, amide, and urethane bonds; n = 0-2] in the side chain. The photosensitive layer has good adhesion to the silicone rubber layer and the plate is easy to develop and has good printing durability.
IT **147833-66-7 147833-67-8**
(waterless presensitized **lithog.** plate using)
RN 147833-66-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 6-benzoyl-16,16-dimethoxy-4,9-dioxo-6-phenyl-5,8,17-trioxa-12-thia-3-aza-16-silaoctadec-1-yl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

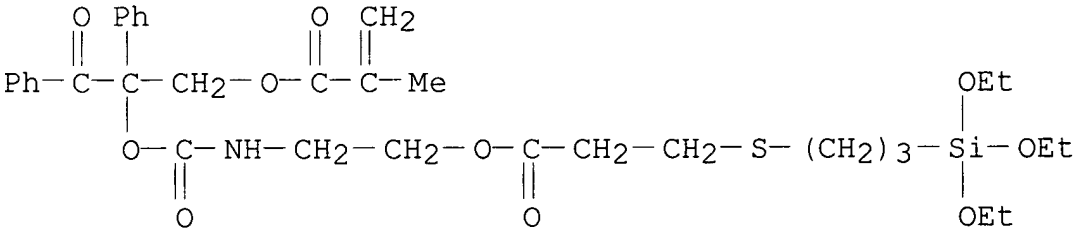
CRN 147568-17-0
CMF C31 H41 N O10 S Si



RN 147833-67-8 HCAPLUS
CN 5,14-Dioxa-9-thia-2-aza-13-silahexadecanoic acid, 13,13-diethoxy-6-oxo-, 1-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-2-oxo-1,2-diphenylethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 147568-18-1
CMF C34 H47 N O10 S Si



IC ICM G03F007-00
ICS G03F007-075
CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
ST waterless presensitized **lithog** plate; silyl alkoxy polymer **lithog** plate
IT **Lithographic** plates
(waterless, presensitized, using photosensitive polymers with alkoxysilyl groups)

IT **147833-66-7 147833-67-8** 147858-94-4
(waterless presensitized **lithog.** plate using)

L37 ANSWER 18 OF 18 HCAPLUS COPYRIGHT 2004 ACS on STN
1987:460080 Document No. 107:60080 Photosensitive curable resin composition. Nishimura, Yoshiaki; Okinoshima, Hiroshige; Yamada, Seiya; Kashiwagi, Tsutomu (Shin-Etsu Chemical Co., Ltd., Japan). U.S. US 4650849 A 19870317, 7 pp. (English). CODEN: USXXAM. APPLICATION: US 1985-727359 19850425.

AB Photocurable polyimides with good heat resistance and mech. strength, high resoln. and adhesion when used in **printing plates**, circuit boards, etc., are prepd. from a siloxane, tetracarboxylic anhydride, and a polyamine. Mixing at .apprx.2.degree. 49 g 4,4'-diaminodiphenylmethane, 24.8 g 1,1,3-trimethyl-1-(3-aminopropyl)-3,3-divinyl disiloxane, and 600 g N-methyl-2-pyrrolidone; adding 98.2 g 3,3',4,4'-benzophenonetetracarboxylic dianhydride and keeping at .apprx.25.degree. for 5 h gave a polyamic acid (I). Blending 50 g I and 0.1 g dicumyl peroxide, casting, drying at 120.degree. for 10 min gave a photocurable film, which, when photocured through a mask and developed, gave resoln. to 10 .mu. width, and excellent adhesion.

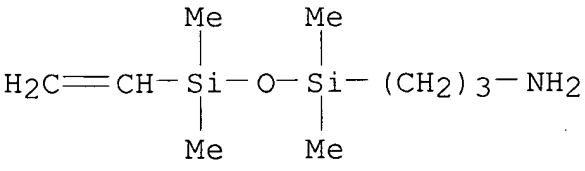
IT **109536-81-4**
(photocurable, with high resoln.)

RN 109536-81-4 HCAPLUS

CN 1,3-Isobenzofurandione, 5,5'-carbonylbis-, polymer with 3-(3-ethenyl-1,1,3,3-tetramethyldisiloxanyl)-1-propanamine, 4,4'-methylenebis[benzenamine] and 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis[1-propanethiol] (9CI) (CA INDEX NAME)

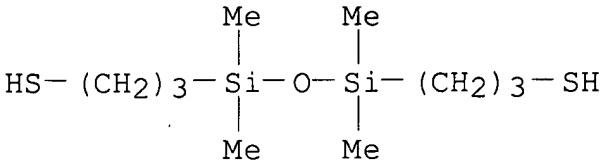
CM 1

CRN 101508-58-1
CMF C9 H23 N O Si2



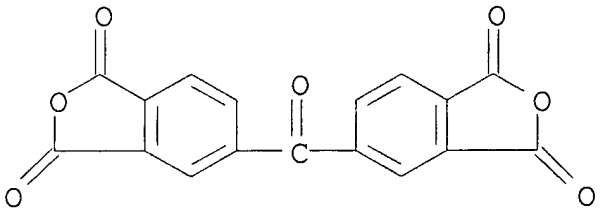
CM 2

CRN 18001-52-0
CMF C10 H26 O S2 Si2



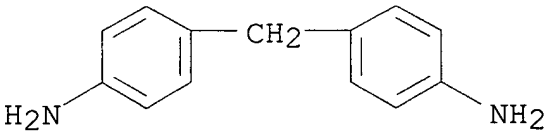
CM 3

CRN 2421-28-5
CMF C17 H6 O7



CM 4

CRN 101-77-9
CMF C13 H14 N2



IC ICM C08G077-04
NCL 528026000
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74, 76
IT 108317-82-4 108317-84-6 108317-85-7 109521-05-3 109521-06-4
109521-07-5 **109536-81-4**
(photocurable, with high resoln.)

=> d l38 1-24 cbib abs hitstr hitind

L38 ANSWER 1 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:717440 Document No. 139:231423 Water-soluble or water-dispersible fluorochemical silanes for oil and water repellent substrates. Dams, Rudolf J. (Belg.). U.S. Pat. Appl. Publ. US 2003168783 A1 20030911, 13 pp. (English). CODEN: USXXCO. APPLICATION: US 2002-53001 20020117.

AB A water-sol. or water-dispersible fluorochem. silane has formula XMfnMhmMarG [X = initiator residue or H; Mf = units derived from .gtoreq.1 fluorinated monomer; Mh = units derived from .gtoreq.1 nonfluorinated monomer; Ma = units having a silyl group SiY4Y5Y6 , Y4, Y5 and Y 6 = alkyl group, an aryl group or a hydrolyzable group; G = monovalent org. group comprising the residue of a chain transfer agent; n = 1-100; m = 0-100; and r = 0-100; and n+m+r .gtoreq.2; providing .gtoreq.1 of the following conditions is fulfilled: (a) G contains a silyl group SiY1Y2Y3, where Y1 , Y2 and Y3 = alkyl, aryl or a hydrolyzable group and .gtoreq.1 of Y1, Y2 and Y3 = hydrolyzable H2O solubilizing group; or (b) r .gtoreq.1 and .gtoreq.1 of Y4, Y5 and Y6 = a hydrolyzable H2O solubilizing group].

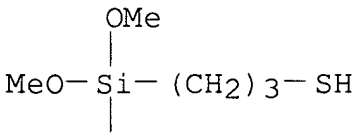
IT **443649-53-4DP**, reaction products with polyoxyalkylenes (water-sol. or water-dispersible fluorochem. silanes for waterproofing and oilproofing substrates)

RN 443649-53-4 HCAPLUS

CN 2-Propenoic acid, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

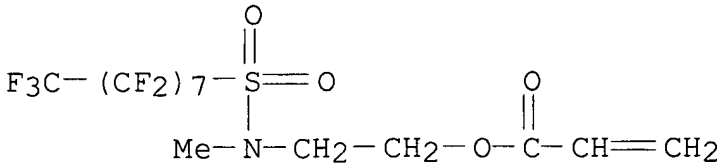


CM 2

CRN 27119-23-9
CMF (C14 H10 F17 N O4 S)x
CCI PMS

CM 3

CRN 25268-77-3
CMF C14 H10 F17 N O4 S



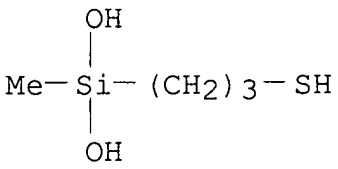
IC ICM B05D003-10
ICS B05D003-04; C07F007-04; C07F007-12; C04B033-34
NCL 264602000; 556485000; 427340000; 427344000
CC **37-3** (Plastics Manufacture and Processing)
Section cross-reference(s): 42
IT 112-35-6DP, reaction products with fluorochem. telomers
9004-74-4DP, Carbowax 550, reaction products with fluorochem. telomers 443649-51-2DP, reaction products with polyoxyalkylenes
443649-52-3DP, reaction products with polyoxyalkylenes
443649-53-4DP, reaction products with polyoxyalkylenes
443649-55-6DP, reaction products with polyoxyalkylenes
443649-56-7DP, reaction products with polyoxyalkylenes
443649-58-9DP, reaction products with polyoxyalkylenes
(water-sol. or water-dispersible fluorochem. silanes for waterproofing and oilproofing substrates)

L38 ANSWER 2 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:118620 Document No. 138:153979 Comb-shaped polymers having anionic functionality, their preparation and use as scale inhibitors and dispersants. Narayan-Sarathy, Sridevi; Dammann, Laurence G. (USA). U.S. Pat. Appl. Publ. US 2003032727 A1 20030213, 6 pp. (English). CODEN: USXXCO. APPLICATION: US 2001-901249 20010709.
AB Comb polymers having anionic functionality are synthesized by the free radical polymn. of a monomer(s) contg. anionic functionality in the presence of a poly(mercaptosiloxane), which functions as a chain-transfer agent. Thus, 0.13 g 2,2'-azobis(2-methylbutanenitrile) initiator in 10 mL toluene, 5 g poly (3-mercaptopropyl) methylsiloxane made up to 10 mL using toluene, and 95 g acrylic acid, an addnl. 0.43 g initiator dissolved in 5 mL toluene was added, all were mixed over 2 h at room temp., stirred 2 h at 80.degree., another dose of initiator was added, and stirred 1 h at 90.degree. to give a comb polymer.
IT **494870-15-4P**, Acrylic acid-(3-mercaptopropyl)methylsilanediol graft copolymer
(comb-shaped polymers having anionic functionality as scale inhibitors, dispersants, and adhesives)
RN 494870-15-4 HCAPLUS

CN 2-Propenoic acid, polymer with (3-mercaptopropyl)methylsilanediol, graft (9CI) (CA INDEX NAME)

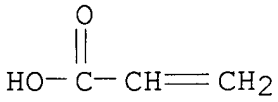
CM 1

CRN 156730-90-4
CMF C4 H12 O2 S Si



CM 2

CRN 79-10-7
CMF C3 H4 O2



IC ICM C08F008-00
NCL 525100000
CC **35-8** (Chemistry of Synthetic High Polymers)
Section cross-reference(s): **38**, 42
IT **494870-15-4P**, Acrylic acid-(3-mercaptopropyl)methylsilanedio l graft copolymer 494870-16-5P, Acrylic acid-2-Ethylhexyl acrylate-(3-mercaptopropyl)methylsilanediol graft copolymer 494870-17-6P, Acrylic acid-butyl acrylate-(3-mercaptopropyl)methylsilanediol graft copolymer
(comb-shaped polymers having anionic functionality as scale inhibitors, dispersants, and adhesives)

L38 ANSWER 3 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:649998 Document No. 137:185831 Optical resolving agents and column fillers and method for optical resolution of phenylalanines. Ihara, Hirotaka (Okubo, Katsutoshi, Japan; Seisan Kaihatsu Kagaku Kenkyusho). Jpn. Kokai Tokkyo Koho JP 2002241317 A2 20020828, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-43194 20010220.
AB The agents comprise polymers of Z[CH2CR(COXY)]n (R = H, Me; X = optically active amino acid residue; Y = C.gtoreq.5 alkyl; Z =

functional group; n .gtoreq.2). The agents are useful as fillers for a liq. chromatograph. N-acryloyl-L-phenylalanine docosyl ester was polymd. in the presence of 3-methylpropyltrimethoxysilane (sic) to give a polymer. N-carbobenzoxy-DL-phenylalanine was optically resolved with liq. chromatograph. packed with the polymer fixed on silica gel at 0.degree., resulting in sepn. factor .alpha. 1.28.

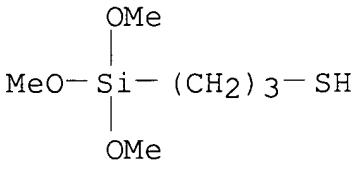
IT **451462-98-9P**
(resolving agents; optical resolving agents and column fillers and method for optical resoln. of phenylalanines)

RN 451462-98-9 HCAPLUS

CN L-Phenylalanine, N-(1-oxo-2-propenyl)-, docosyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



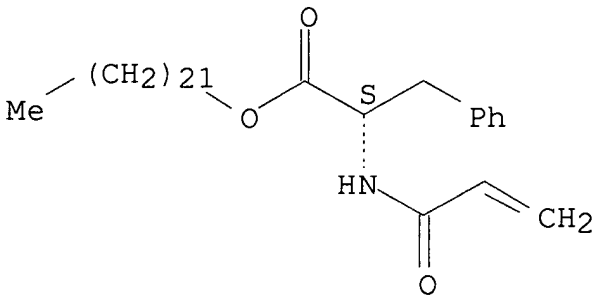
CM 2

CRN 454187-08-7
CMF (C34 H57 N O3)x
CCI PMS

CM 3

CRN 451462-96-7
CMF C34 H57 N O3

Absolute stereochemistry.



IC ICM C07B057-00
ICS B01D015-08; C07C269-08; C07C271-22; C08F120-58; G01N030-48; G01N030-88; C07M007-00
CC 34-2 (Amino Acids, Peptides, and Proteins)
Section cross-reference(s): **38**
IT **451462-98-9P**
(resolving agents; optical resolving agents and column fillers and method for optical resoln. of phenylalanines)

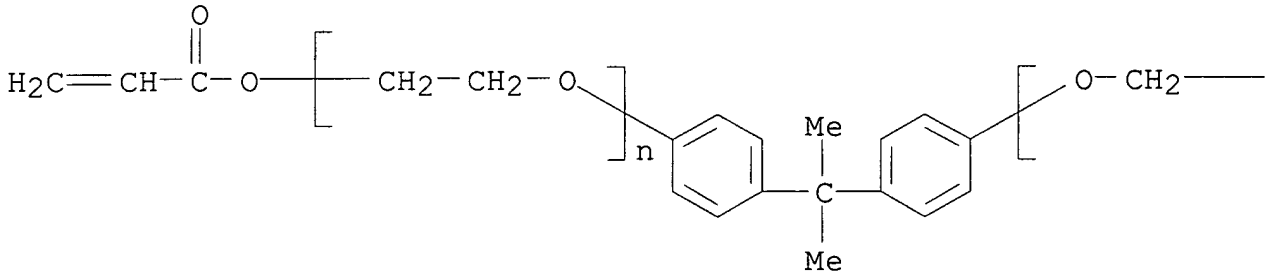
L38 ANSWER 4 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:573373 Document No. 137:125870 Metal chelates as UV stabilizer in polymeric materials. Rose, Klaus; Schneider, Andreas (Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany). Eur. Pat. Appl. EP 1227122 A2 20020731, 15 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (German). CODEN: EPXXDW. APPLICATION: EP 2002-1115 20020124. PRIORITY: DE 2001-10103349 20010125.
AB Polymers are stabilized against UV light by such metal chelates that the polymers are coordinately bonded to the metals. A typical compn. for manuf. of a light-resistant film on glass plate is based on sol-gel-prepd. ethoxylated bisphenol A diacrylate-3-mercaptopropylmethyldimethoxysilane copolymer contg. 10% Al di-sec-butoxide Et acetoacetate.
IT **174201-59-3P**, Ethoxylated bisphenol A diacrylate-3-Mercaptopropylmethyldimethoxysilane copolymer
(metal chelates as UV stabilizers in polymeric materials)
RN 174201-59-3 HCAPLUS
CN 1-Propanethiol, 3-(dimethoxymethylsilyl)-, polymer with .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

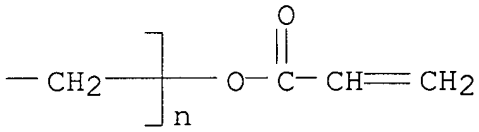
CRN 64401-02-1

CMF (C2 H4 O)n (C2 H4 O)n C21 H20 O4
CCI PMS

PAGE 1-A

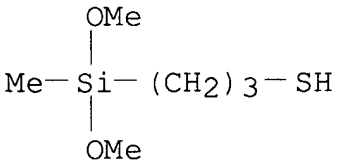


PAGE 1-B



CM 2

CRN 31001-77-1
CMF C6 H16 O2 S Si



IC ICM C08K005-00
CC **37-6** (Plastics Manufacture and Processing)
Section cross-reference(s): 42
IT **174201-59-3P,** Ethoxylated bisphenol A diacrylate-3-Mercaptopropylmethyldimethoxysilane copolymer 444315-28-0P, 3-Mercaptopropyltrimethoxysilane-vinyltriethoxysilane copolymer
(metal chelates as UV stabilizers in polymeric materials)

L38 ANSWER 5 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

2002:553099 Document No. 137:109984 Water soluble or water dispersible fluorochemical silanes for rendering substrates oil and water repellent.. Dams, Rudi (3M Innovative Properties Company, USA). Eur. Pat. Appl. EP 1225188 A1 20020724, 23 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2001-200208 20010119.

AB The present invention provides a water sol. or water dispersible fluorochem. silane represented by the general formula: X-MfnMhmMar-G wherein X represents the residue of an initiator or hydrogen; Mf represents units derived from one or more fluorinated monomer; Mh represents units derived from one or more non-fluorinated monomer; Ma represents units having a silyl group represented by SiY4Y5Y6, wherein each of Y4, Y5 and Y6 independently represents an alkyl group, an aryl group or a hydrolyzable group; G is a monovalent org. group comprising the residue of a chain transfer agent; n represents a value of 1 to 100; m represents a value of 0 to 100; and r represents a value of 0 to 100; and n+m+r is at least 2; with the proviso that at least one of the following conditions is fulfilled: (a) G contains a silyl group SiY1Y2Y3, wherein Y1, Y2 and Y3 each independently represents an alkyl group, an aryl group or a hydrolyzable group and at least one of Y1, Y2 and Y3 represents a hydrolyzable water solubilizing group or (b) r is at least 1 and at least one of Y4, Y5 and Y6 represents a hydrolyzable water solubilizing group. A material was prepd. by telomerization of N-Me perfluorooctyl sulfonamido ethylacrylate, A-160, and A-174, followed by reaction with Carbowax 550.

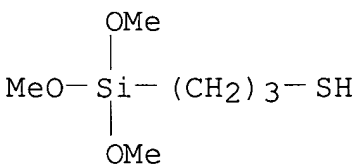
IT **443649-53-4DP**, reaction products with polyoxyalkylenes (water sol. or water dispersible fluorochem. silanes for rendering substrates oil and water repellent.)

RN 443649-53-4 HCAPLUS

CN 2-Propenoic acid, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

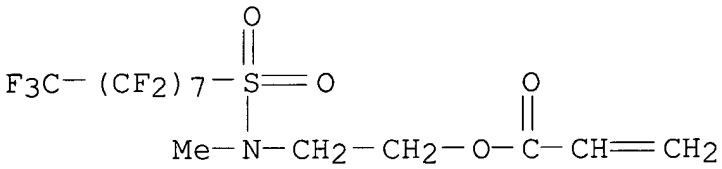


CM 2

CRN 27119-23-9
CMF (C14 H10 F17 N O4 S)x
CCI PMS

CM 3

CRN 25268-77-3
CMF C14 H10 F17 N O4 S



IC ICM C08F020-22
ICS C08F220-22; C08F220-24; C08F020-24; C08F020-38; C08F220-38
CC **37-3** (Plastics Manufacture and Processing)
Section cross-reference(s): 42
IT 112-35-6DP, reaction products with fluorochem. telomers
9004-74-4DP, Carbowax 550, reaction products with fluorochem. telomers 443649-51-2DP, reaction products with polyoxyalkylenes
443649-52-3DP, reaction products with polyoxyalkylenes
443649-53-4DP, reaction products with polyoxyalkylenes
443649-55-6DP, reaction products with polyoxyalkylenes
443649-56-7DP, reaction products with polyoxyalkylenes
443649-58-9DP, reaction products with polyoxyalkylenes
(water sol. or water dispersible fluorochem. silanes for rendering substrates oil and water repellent.)

L38 ANSWER 6 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:553098 Document No. 137:109983 Fluorovinyl oligomer component having silane groups, liquid compositions thereof and method of coating. Dams, Rudi (3M Innovative Properties Company, USA). Eur. Pat. Appl. EP 1225187 A1 20020724, 24 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR. (English). CODEN: EPXXDW. APPLICATION: EP 2001-200207 20010119.
AB The present invention provides a fluorochem. compn. comprising a major amt. of org. solvent and 0.05-5% of fluorochem. oligomer dispersed or dissolved in the org. solvent. The fluorochem. oligomer is represented by: X-MfnMhmMar-G wherein X represents the residue of an initiator or hydrogen; Mf represents units derived

from fluorinated monomers; Mh represents units derived from a non-fluorinated monomers; Ma represents units having a silyl group represented by SiY4Y5Y6: wherein each of Y4,Y5 and Y6 independently represents an alkyl group, an aryl group or a hydrolyzable group; G is a monovalent org. group comprising the residue of a chain transfer agent; n represents a value of 1 to 100; m represents a value of 0 to 100; r represents a value of 0 to 100; and n + m +r is at least 2; with the proviso that at least one of the following conditions is fulfilled: (a) G is a monovalent org. group that contains a silyl group SiY1Y2Y3: wherein Y1, Y2 and Y3 each independently represents an alkyl group, an aryl group or a hydrolyzable group with at least one of Y1, Y2 and Y3 representing a hydrolyzable group or (b) r is at least 1 and at least one of Y4, Y5 and Y6 represents a hydrolyzable group. A material was prepd. by telomerization of A-160, N-Me perfluorooctylsulfonamidoethyl methacrylate, and octadecyl methacrylate in the presence of AIBN.

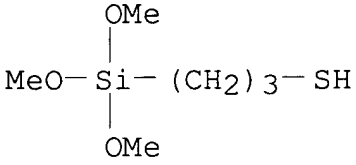
IT **443649-53-4P 443661-41-4P**
(fluorovinyl oligomer component having silane groups, liq. compns. thereof and method of coating)

RN 443649-53-4 HCAPLUS

CN 2-Propenoic acid, 2-[[(heptadecafluorooctyl)sulfonyl]methylamino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

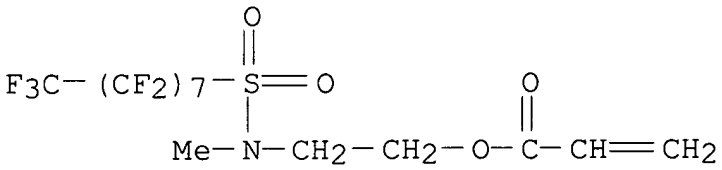


CM 2

CRN 27119-23-9
CMF (C14 H10 F17 N O4 S)x
CCI PMS

CM 3

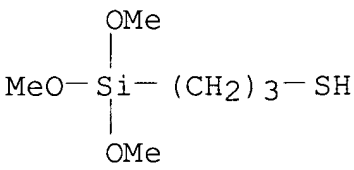
CRN 25268-77-3
CMF C14 H10 F17 N O4 S



RN 443661-41-4 HCAPLUS
CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

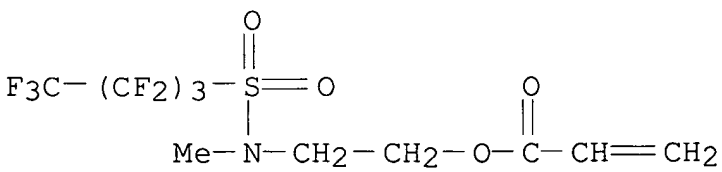


CM 2

CRN 306997-45-5
CMF (C10 H10 F9 N O4 S)x
CCI PMS

CM 3

CRN 67584-55-8
CMF C10 H10 F9 N O4 S



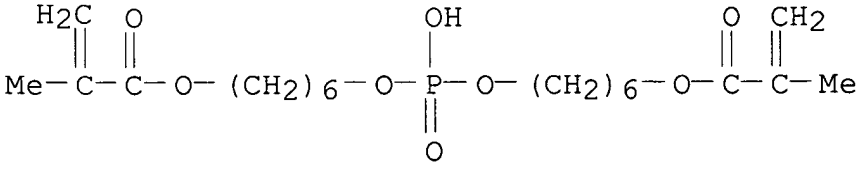
IC ICM C08F008-42

ICS C08F020-22; C04B041-48; B05D007-00; C09D157-08
CC **37-3** (Plastics Manufacture and Processing)
Section cross-reference(s): 42
IT 15396-00-6DP, reaction products with fluorochem. telomers
307335-80-4DP, reaction products with isocyanatopropyltrimethoxysilane 307335-81-5DP, reaction products with isocyanatopropyltrimethoxysilane 307335-82-6DP, reaction products with isocyanatopropyltrimethoxysilane **443649-53-4P**
443661-34-5P 443661-37-8P 443661-40-3P **443661-41-4P**
443661-44-7DP, reaction products with isocyanatopropyltrimethoxysilane 443661-47-0DP, reaction products with isocyanatopropyltrimethoxysilane
(fluorovinyl oligomer component having silane groups, liq. compns. thereof and method of coating)

L38 ANSWER 7 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2002:98777 Document No. 136:156501 Adhesive compositions suitable for use for dental repair. Nakatsuka, Kazumitsu (Kuraray Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002038105 A2 20020206, 22 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-219610 20000719.
AB The invention relates to an adhesive compn. providing excellent adhesion strength with metal, and water resistance, suitable for use as a dental adhesive, wherein the compn. contains sulfur-contg. silane coupling agent and acidic group-contg. polymerizable monomer. A sulfur-contg. silane coupling agent H3CO(OMe)2Si(CH2)4SH (4-BSM) 50 parts was combined with a monomer CH2:C(Me)COO(CH2)10OPO3H2 (MDP) 50 parts to obtain an adhesive compn., and tested for its adhesion strength with a gold alloy.
IT **395084-23-8P 395084-24-9P**
(adhesive compns. contg. sulfur-contg. silane coupling agents and acidic monomers suitable for use for dental repair)
RN 395084-23-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, phosphinicobis(oxy-6,1-hexanediyl) ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

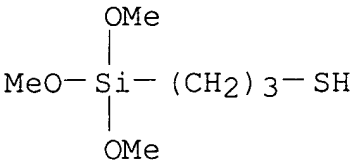
CM 1

CRN 118497-91-9
CMF C20 H35 O8 P



CM 2

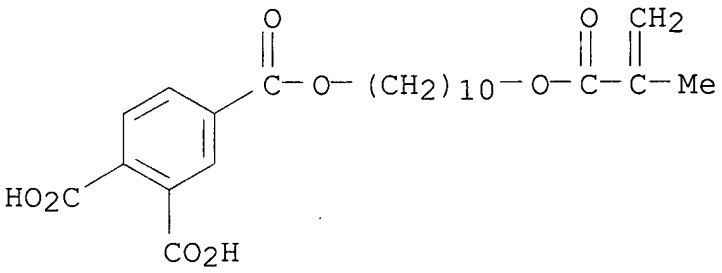
CRN 4420-74-0
CMF C6 H16 O3 S Si



RN 395084-24-9 HCAPLUS
CN 1,2,4-Benzenetricarboxylic acid, 4-[10-[(2-methyl-1-oxo-2-propenyl)oxy]decyl] ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

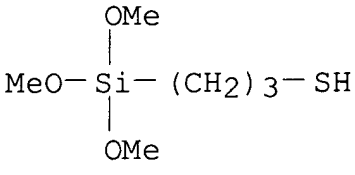
CM 1

CRN 310411-79-1
CMF C23 H30 O8



CM 2

CRN 4420-74-0
CMF C6 H16 O3 S Si



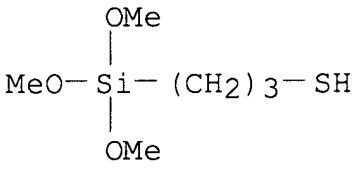
IC ICM C09J004-00
ICS A61K006-00
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): **38**
IT 118497-90-8P 395083-96-2P 395083-98-4P 395084-00-1P
395084-03-4P 395084-06-7P 395084-08-9P 395084-09-0P
395084-10-3P 395084-11-4P 395084-12-5P 395084-14-7P
395084-16-9P 395084-18-1P 395084-20-5P 395084-21-6P
395084-22-7P **395084-23-8P 395084-24-9P**
395084-25-0P 395084-26-1P
(adhesive compns. contg. sulfur-contg. silane coupling agents and acidic monomers suitable for use for dental repair)

L38 ANSWER 8 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
2001:707196 Document No. 135:257612 Phosphorylcholine-like group-containing polymers with functional terminal groups and biocompatible inorganic materials therewith. Ishihara, Kazuhiko; Nakabayashi, Nobuo; Iwasaki, Yasuhiko; Kurita, Kimio; Kaneuji, Tomoki (NOF Corporation, Japan). Jpn. Kokai Tokkyo Koho JP 2001261740 A2 20010926, 11 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-70117 20000314.
AB Title polymers with mol. wt. 500-1,000,000 are represented by the general formula H{CX1[CO(CH2CHX2O)n2OP(:O)(O-)O(CH2)mNR1R2R3]CH2}n1(CY1Y2CH2)n3S(CH2)hSiR43-g(OR5)g, where X1-2, Y1 = H or Me, Y2 = COOR, COOH, amide (deriv.), pyrrolidone, or (halogen-substituted) Ph, R = (alkoxy-substituted) alkyl or (alkoxy)polyoxyalkylene, R1-3 = (substituted) C1-10 hydrocarbyl, R4-5 = (substituted) C1-6 hydrocarbyl, h = 1-3, m = 2-4, n1 = 1-10,000, n2 = 1-1000, and n3 = 0-10,000. Thus, 2-methacryloyloxyethylphosphorylcholine 0.3, 3-mercaptopropyltrimethoxysilane 0.06, and benzoyl peroxide 0.003 mol/L were heated at 50.degree. for 6 h under vacuum to give a polymer, in 1% ethanol soln. of which a glass was immersed, withdrawn, and heated at 100.degree. for 30 min to give a treated glass showing no adsorption of blood platelet in a test.
IT **361482-52-2P**
(prepn. of phosphorylcholine-like group-contg. polymers with functional terminal groups useful as treatment agents to prep. biocompatible inorg. materials)
RN 361482-52-2 HCAPLUS

CN 3,5,8-Trioxa-4-phosphaundec-10-en-1-aminium, 4-hydroxy-N,N,N,10-tetramethyl-9-oxo-, inner salt, 4-oxide, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

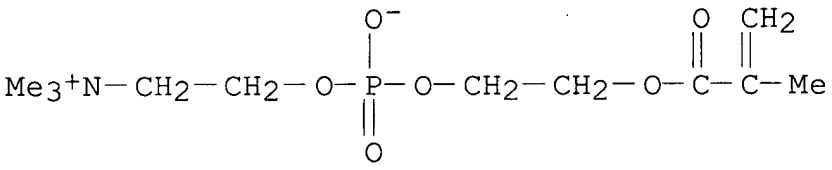


CM 2

CRN 67881-99-6
CMF (C11 H22 N O6 P)x
CCI PMS

CM 3

CRN 67881-98-5
CMF C11 H22 N O6 P



IC ICM C08F030-02
ICS A61L027-00; A61L029-00; C08F002-38; C08F004-28; C08F212-04; C08F220-00; C08F226-08; G02B001-04; G02C007-04

CC **35-4** (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 63

IT **361482-52-2P** 361482-53-3P 361482-54-4P
(prepn. of phosphorylcholine-like group-contg. polymers with functional terminal groups useful as treatment agents to prep. biocompatible inorg. materials)

L38 ANSWER 9 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:621468 Document No. 135:318818 Study on photopolymerization of addition products of multifunctional acrylates and alkoxysilyl alkyl thiol. Maruyama, Tsutomu; Kusumoto, Nobuo; Seko, Kenji (Technical Laboratory, Kansai Paint Co., Ltd., Kanagawa, 254-8562, Japan). Journal of Photopolymer Science and Technology, 14(2), 165-170 (English) 2001. CODEN: JSTEEW. ISSN: 0914-9244. Publisher: Technical Association of Photopolymers, Japan.

AB Three monomers having multiple (trimethoxysilyl)propylthio groups were prepd. by Michael addn. of the multifunctional acrylates neopentyl glycol diacrylate (NPG), trimethylol propane triacrylate (TMP), and pentaerythritol tetraacrylate (PETTA) with (.gamma.-mercaptopropyl)trimethoxysilane. These photocurable NPG-Si, TMP-Si, and PETTA-Si oligomers were then UV-irradiated using photocationic and photoradical initiators. Both Michael addn. and photopolymn. were studied by IR spectroscopy. Reaction proceeds from silanol formation to demethanolization and dehydration, leading to condensation, and polymn. by chain reaction. The resulting polymer films were then subjected to various test procedures (pencil hardness, steel wool mar resistance, gel fraction (%), and heat resistance) to assess curability. Polymn. with photocationic initiator provided films with a high hardness and mar resistance.

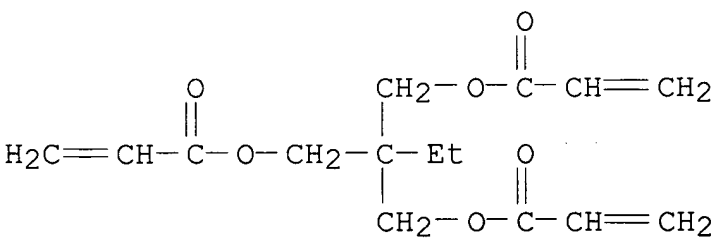
IT **229031-51-0P**, (.gamma.-Mercaptopropyl)trimethoxysilane-trimethylolpropane triacrylate copolymer **362511-29-3P**, (.gamma.-Mercaptopropyl)trimethoxysilane-neopentyl glycol diacrylate copolymer **362511-33-9P**, Pentaerythritol tetraacrylate-(.gamma.-mercaptopropyl)trimethoxysilane copolymer (photopolymn. of Michael addn. products of multifunctional acrylates and (mercaptopropyl)trimethoxysilane and properties of photocured products in relation to)

RN 229031-51-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

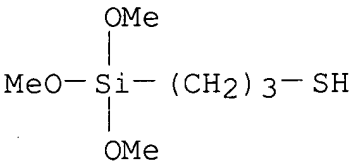
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

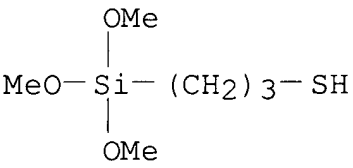
CRN 4420-74-0
CMF C6 H16 O3 S Si



RN 362511-29-3 HCAPLUS
CN 2-Propenoic acid, 2,2-dimethyl-1,3-propanediyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

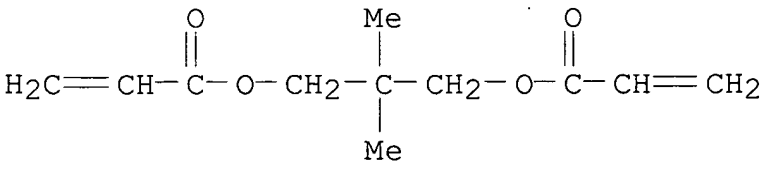
CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

CRN 2223-82-7
CMF C11 H16 O4

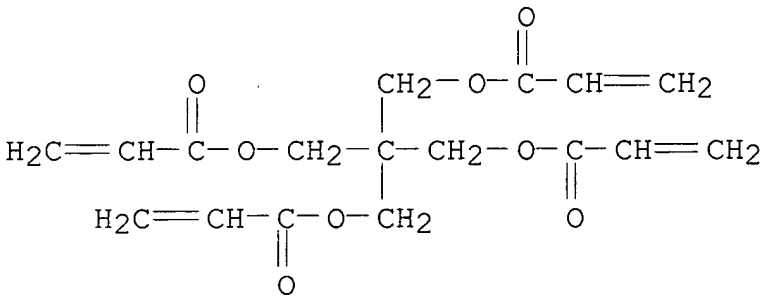


RN 362511-33-9 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-

propanediyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

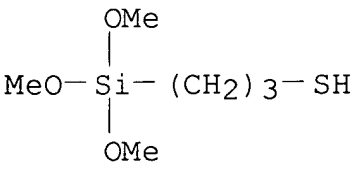
CM 1

CRN 4986-89-4
CMF C17 H20 O8



CM 2

CRN 4420-74-0
CMF C6 H16 O3 S Si



CC **35-7** (Chemistry of Synthetic High Polymers)
IT 28628-65-1P, Neopentyl glycol diacrylate homopolymer 36446-02-3P, Trimethylol propane triacrylate homopolymer 57592-66-2P, Pentaerythritol tetraacrylate homopolymer **229031-51-0P**, (.gamma.-Mercaptopropyl)trimethoxysilane-trimethylolpropane triacrylate copolymer **362511-29-3P**, (.gamma.-Mercaptopropyl)trimethoxysilane-neopentyl glycol diacrylate copolymer **362511-33-9P**, Pentaerythritol tetraacrylate-(.gamma.-mercaptopropyl)trimethoxysilane copolymer (photopolymn. of Michael addn. products of multifunctional acrylates and (mercaptopropyl)trimethoxysilane and properties of photocured products in relation to)

L38 ANSWER 10 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

2001:3145 Document No. 134:193812 Syntheses and polymerizations of novel chiral methacrylates bearing urethane bonds and N,N-dibenzylamino groups. Lee, Yong-Kyung; Onimura, Kenjiro; Tsutsumi, Hiromori; Oishi, Tsutomu (Department of Applied Chemistry and Chemical Engineering, Faculty of Engineering, Yamaguchi University, Yamaguchi, 755-8611, Japan). Polymer Journal (Tokyo), 32(12), 1007-1016 (English) 2000. CODEN: POLJB8. ISSN: 0032-3896. Publisher: Society of Polymer Science, Japan.

AB Four new chiral methacrylates bearing urethane bonds and N,N-dibenzylamino groups (RMOC) were synthesized from 2-methacryloyloxyethyl isocyanate (MOI) and four chiral alc. derivs. of .alpha.-amino acids, L-valine, L-leucine, D-phenylglycine, and L-phenylalanine. Radical polymns. of RMOC were performed under various conditions to obtain the corresponding poly(RMOC) with no. av. mol. wts. (Mn) of 2.4.times.104-6.4.times.104. Poly(RMOC) has hydrogen bonds based on urethane segments in solvent and exhibited neg. rotation. Specific optical rotations of poly(RMOC) were slightly influenced by solvent and temp. Radical copolymns. of RMOC with styrene (ST) and Me methacrylate (MMA) were performed with AIBN in toluene at 60.degree.. Monomer reactivity ratios (r1, r2) and Alfrey-Price Q-e were detd. Chiroptical properties of the copolymers were scarcely affected by co-units of ST and MMA. Chiral stationary phases (CSPs) for high performance liq. chromatog. (HPLC) were prepd. from poly(RMOC) and silica gel and optical resoln. ability was investigated. CSPs resolved some racemic compds. (1-5) using methanol/water as mobile phase.

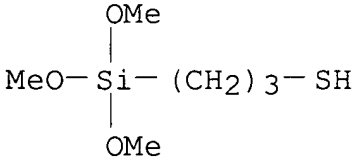
IT **328041-35-6DP**, reaction products with silica
328041-41-4DP, reaction products with silica
328041-45-8DP, reaction products with silica
(syntheses and polymns. of novel chiral methacrylates bearing urethane bonds and N,N-dibenzylamino groups)

RN 328041-35-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[(2S)-2-[bis(phenylmethyl)amino]-3-methylbutoxy]carbonyl]amino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



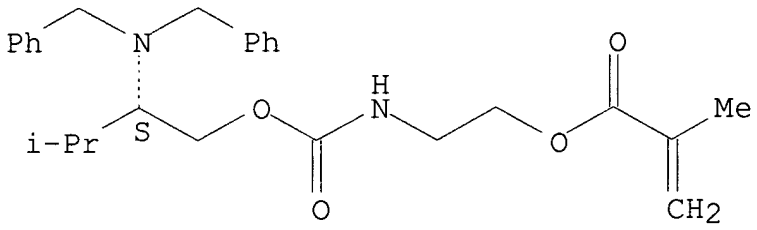
CM 2

CRN 328041-33-4
CMF (C26 H34 N2 O4)x
CCI PMS

CM 3

CRN 328041-20-9
CMF C26 H34 N2 O4

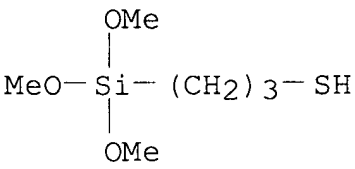
Absolute stereochemistry. Rotation (-).



RN 328041-41-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[[[(2S)-2-[bis(phenylmethyl)amino]-3-phenylpropoxy]carbonyl]amino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



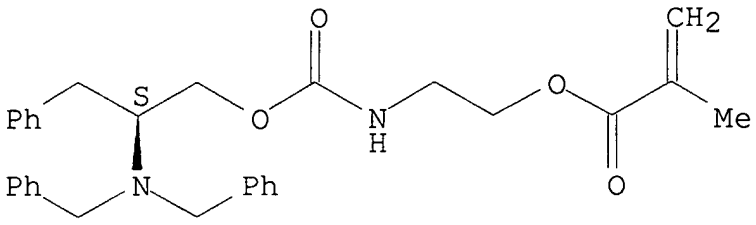
CM 2

CRN 328041-39-0
CMF (C30 H34 N2 O4)x
CCI PMS

CM 3

CRN 328041-21-0
CMF C30 H34 N2 O4

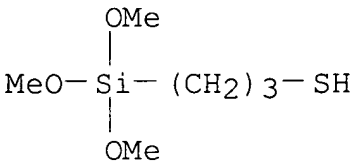
Absolute stereochemistry. Rotation (-).



RN 328041-45-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-[[[[(2S)-2-[bis(phenylmethyl)amino]-4-methylpentyl]oxy]carbonyl]amino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



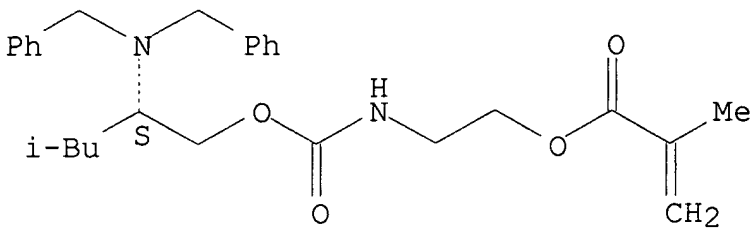
CM 2

CRN 328041-44-7
CMF (C27 H36 N2 O4)x
CCI PMS

CM 3

CRN 328041-22-1
CMF C27 H36 N2 O4

Absolute stereochemistry. Rotation (-).



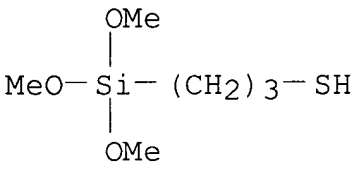
IT **328041-48-1DP**, reaction products with silica
(syntheses and polymns. of novel chiral methacrylates bearing urethane bonds and N,N-dibenzylamino groups)

RN 328041-48-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[[[(2R)-2-[bis(phenylmethyl)amino]-2-phenylethoxy]carbonyl]amino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



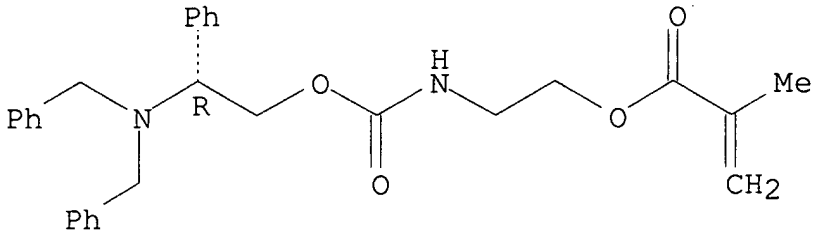
CM 2

CRN 328041-47-0
CMF (C29 H32 N2 O4)x
CCI PMS

CM 3

CRN 328041-23-2
CMF C29 H32 N2 O4

Absolute stereochemistry. Rotation (-).



CC **35-4** (Chemistry of Synthetic High Polymers)

IT **328041-35-6DP**, reaction products with silica
328041-37-8DP, reaction products with silica **328041-41-4DP**
, reaction products with silica 328041-43-6DP, reaction products with silica **328041-45-8DP**, reaction products with silica
328041-46-9DP, reaction products with silica
(syntheses and polymns. of novel chiral methacrylates bearing urethane bonds and N,N-dibenzylamino groups)

IT 328041-20-9P 328041-21-0P 328041-22-1P 328041-23-2P
328041-26-5P 328041-27-6P **328041-48-1DP**, reaction products with silica 328041-49-2DP, reaction products with silica
(syntheses and polymns. of novel chiral methacrylates bearing urethane bonds and N,N-dibenzylamino groups)

L38 ANSWER 11 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

2000:175507 Document No. 132:223567 Polysiloxane semipermeable membranes. Wolter, Herbert; Ballweg, Thomas; Storch, Werner (Fraunhofer-Gesellschaft Zur Forderung Der Angewandten Forschung E.V., Germany). Eur. Pat. Appl. EP 985443 A2 20000315, 33 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO. (German). CODEN: EPXXDW. APPLICATION: EP 1999-113690 19990715. PRIORITY: DE 1998-19841440 19980910; DE 1998-19846608 19981009.

AB The title membranes, which can be supported or free-standing and are useful in sepn. and in gas exchange, are formed from liqs. prepd. by hydrolytic polycondensation of norbornyl group-contg. silanes and/or other silanes of specified structure. A polysiloxane prepd. by hydrolytic polymn. of a mixt. of glycerol 1,3-dimethacrylate 1, 3-(triethoxysilyl)propyl isocyanate 1, and 1,12-decanediol dimethacrylate 0.2 mol was spun to form hollow fibers and cured by UV. The cured hollow fibers had elastic modulus 2640 MPa, tensile strength 106 MPa, and O permeability 0.09 .times. 10-10 mL/cm-s-cm Hg.

IT **148568-79-0P**
(polysiloxane semipermeable membranes)

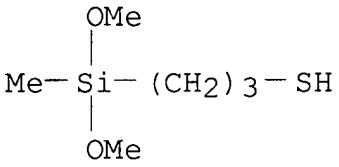
RN 148568-79-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(dimethoxymethylsilyl)-1-

propanethiol (9CI) (CA INDEX NAME)

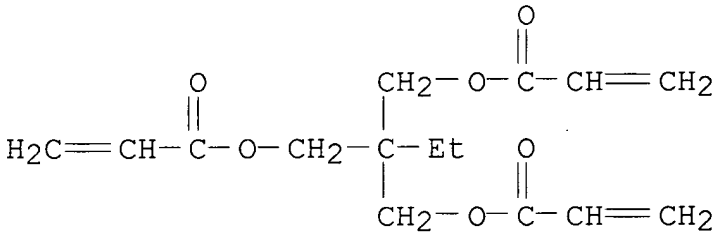
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



CM 2

CRN 15625-89-5
CMF C15 H20 O6



IC ICM B01D071-70
ICS C08G077-00; C08L083-00; C08F230-08
CC **38-3** (Plastics Fabrication and Uses)
IT **148568-79-0P** 209127-62-8P 260560-62-1P 260560-63-2P 260979-43-9P, Glycerol 1,3-dimethacrylate-3-(triethoxysilyl)propyl isocyanate-1,12-dodecanediol dimethacrylate hydrolytic copolymer 260979-44-0P 260979-45-1P
(polysiloxane semipermeable membranes)

L38 ANSWER 12 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:219622 Document No. 128:231505 Replica molding through transparent silicone molds. Matsuoka, Yasuhiko; Kita, Tarou; Fujiki, Hironao; Sakamoto, Takafumi; Nakamura, Shohei; Anai, Kousi (Shonan Design Co., Ltd., Japan; Shin-Etsu Chemical Co., Ltd.; Asahi Kasei Kogyo K. K.; Asahi Chemical Ind.). Eur. Pat. Appl. EP 832726 A2 19980401, 24 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO.

(English). CODEN: EPXXDW. APPLICATION: EP 1997-307442 19970924. PRIORITY: JP 1996-274068 19960925.

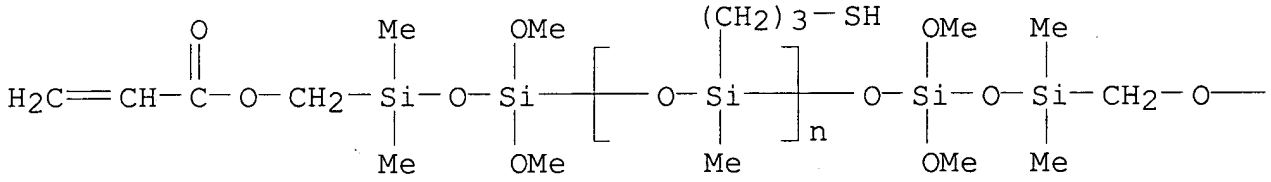
AB Replicas are molded by curing a photocurable liq. silicone rubber compn. to form a transparent mother mold having a cavity corresponding to the outer contour of a master model, casting a photocurable liq. resin into the mold cavity, and irradiating the liq. resin through the mold wall. Thus, a mold for casting acrylic replicas was prepd. by photo-molding a compn. of polydimethylsiloxane blocked with CH2:CHCO2CH2SiOMe2SiO(OMe)2, fumed SiO2, and 2,2-diethoxyacetophenone photoinitiator.

IT **204716-01-8**
(transparent silicone molds for replica molding in reduced time)

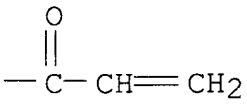
RN 204716-01-8 HCAPLUS

CN Poly[oxy[(3-mercaptopropyl)methylsilylene]], .alpha.-[1,1-dimethoxy-3,3-dimethyl-3-[[(1-oxo-2-propenyl)oxy]methyl]disiloxanyl]-.omega.-[[1,1-dimethoxy-3,3-dimethyl-3-[[(1-oxo-2-propenyl)oxy]methyl]disiloxanyl]oxy]- (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM B29C033-38
ICS B29C039-02; B29C035-08

CC 39-15 (Synthetic Elastomers and Natural Rubber)
Section cross-reference(s): **37**

IT 31900-57-9D, Dimethylsilanediol homopolymer, dimethylvinylsilyl-terminated 32196-46-6 59942-04-0 **204716-01-8**
(transparent silicone molds for replica molding in reduced time)

L38 ANSWER 13 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

1997:342171 Document No. 126:318204 Fireproof composite materials. Storch, Werner; Wolter, Herbert; Braun, Ansger (Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V.,

Germany). Eur. Pat. Appl. EP 765906 A2 19970402, 10 pp. DESIGNATED STATES: R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1996-114397 19960909. PRIORITY: DE 1995-19536498 19950929.

AB The composites comprise (1) a resin derived from XaRbSiR1(4-a-b) [X = hydrolyzable group; R = (un)substituted alkyl, aryl, alkenyl, aralkyl, alkaryl; R1 = polymerizable org. residue; a = 1-3; b = 0-2] and (2) a fire-retardant inorg. hydroxide, sulfate, and/or hydrate. For example, glycerol 1,3-dimethacrylate was condensed with OCN(CH2)3Si(OEt)3 and the product copolymd. with dodecamethylene dimethacrylate to give a resin, which (30%) was compounded with 30% Al(OH)3 and 40% short glass fibers to give a composite with UL 94 rating V-0 and impact strength 25 kJ/m2.

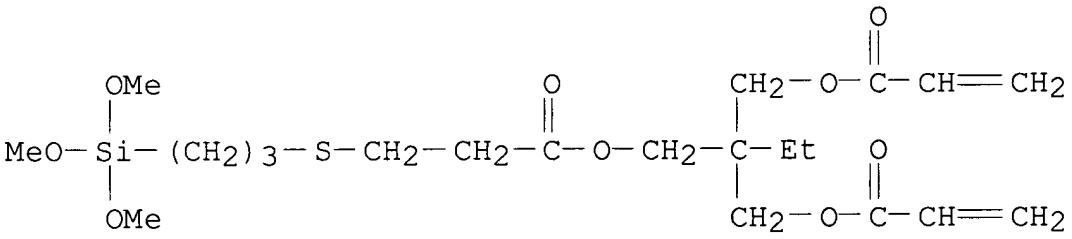
IT **189262-80-4P**
(fireproof composite materials)

RN 189262-80-4 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[1-oxo-3-[[3-(trimethoxysilyl)propyl]thio]propoxy]methyl]-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 189262-79-1
CMF C21 H36 O9 S Si



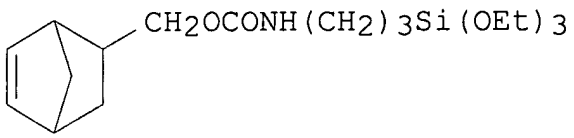
IC ICM C08K013-02
ICI C08K013-02, C08K005-54, C08K003-22, C08K003-30
CC **37-6** (Plastics Manufacture and Processing)
IT 189262-78-0P **189262-80-4P**
(fireproof composite materials)

L38 ANSWER 14 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

1997:181095 Document No. 126:186572 Unsaturated bicyclic silanes and their manufacture and polycondensation by addition reaction and(or) hydrolysis. Wolter, Herbert; Storch, Werner (Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany). Ger. Offen. DE 19627198 A1 19970109, 42 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1996-19627198 19960705. PRIORITY:

DE 1995-19524657 19950706.

GI



I

AB Title compds. such as urethane I are manufd. and are useful for prodn. of moldings, fibers, coatings, adhesives, and sealants. Thus, reaction of 2-(hydroxymethyl)-5-norbornene with OCN(CH2)3Si(OEt)3 gave I, which was hydrolytically polymd. to give soln. that was cured as a coating using a thiol as crosslinker.

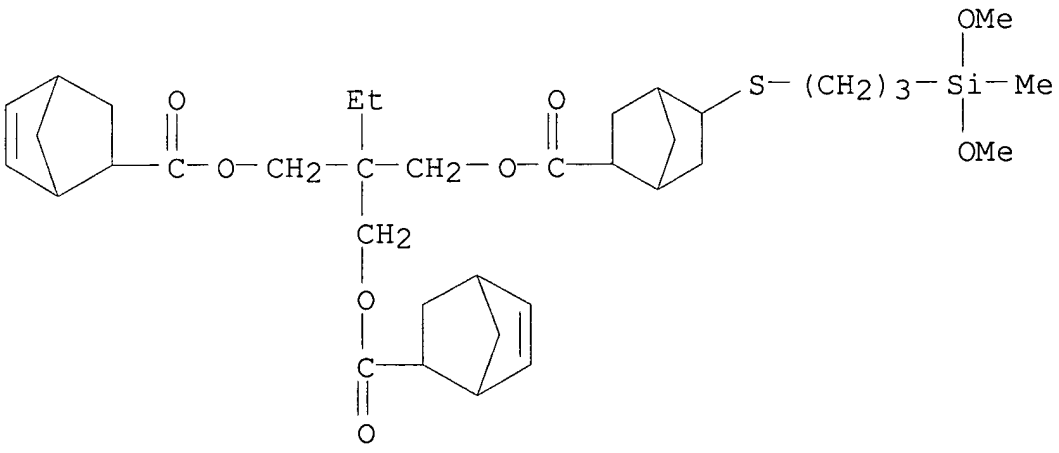
IT **187161-78-0P**
(thiol-cured coatings and moldings; unsatd. bicyclic silanes and their manuf. and polycondensation by addn. reaction and(or) hydrolysis)

RN 187161-78-0 HCAPLUS

CN Bicyclo[2.2.1]hept-5-ene-2-carboxylic acid, 2-[[[[5-[[3-(dimethoxymethylsilyl)propyl]thio]bicyclo[2.2.1]hept-2-yl]carbonyl]oxy]methyl]-2-ethyl-1,3-propanediyl ester, polymer with 1,12-dodecanediyl bis(2-methyl-2-propenoate) (9CI) (CA INDEX NAME)

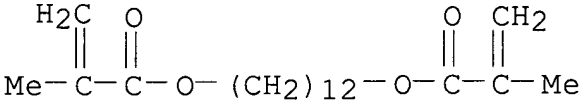
CM 1

CRN 187161-75-7
CMF C36 H54 O8 S Si



CM 2

CRN 72829-09-5
CMF C20 H34 O4

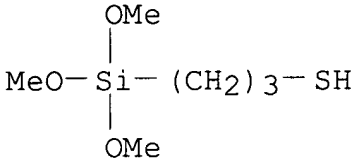


IC ICM C07F007-08
ICS C07F007-10; C07F007-18; C07F009-655; C08L083-04; C09J183-04; C08G077-20; C08G077-26; C08G077-28; C08G077-14; C08G079-00; C08G061-12
ICA C09K003-14
CC **35-6** (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 29, **37**, **38**, 40, 42
IT 187161-61-1P 187161-63-3P 187161-68-8P 187161-72-4P
187161-74-6P 187161-76-8P 187161-77-9P **187161-78-0P**
(thiol-cured coatings and moldings; unsatd. bicyclic silanes and their manuf. and polycondensation by addn. reaction and(or) hydrolysis)

L38 ANSWER 15 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:612531 Document No. 125:223599 Polymer compositions with excellent compatibility and transparency and manufacture of their molded products. Tanimoto, Tomohito; Terada, Kazutoshi; Kinugawa, Masaaki; Fujiwara, Naoki; Sato, Toshiaki; Maruyama, Hitoshi (Kuraray Co, Japan). Jpn. Kokai Tokkyo Koho JP 08188696 A2 19960723 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-1838 19950110.
AB The compns. comprise poly(vinyl alcs.) and polymers having hydrolyzable silyl groups at one chain end and are molded in a hot-melt molding process. Thus, 50 g Uniox PKA 5006 (polyethylene glycol monoallyl ether) was treated with 14.89 g EtOSiHMe2 (sic) at 50.degree. for 20 h in the presence of H2PtCl6.6H2O to give (MeO)SiMe2-terminated polyethylene glycol (I). A compn. of 80 parts poly(vinyl alc.) and 20 parts I was melt kneaded and pressed into a sheet film showing no migration of polyethylene glycol after 30-day storage at 50.degree..
IT **181937-04-2P 181937-21-3P**
(hydrolyzable silyl-contg. polymer-poly(vinyl alc.) compns. with good compatibility)
RN 181937-04-2 HCAPLUS
CN 2-Propenoic acid, 4-hydroxybutyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

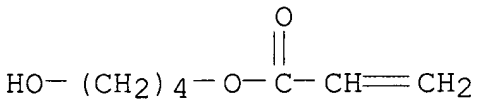


CM 2

CRN 29086-87-1
CMF (C7 H12 O3)x
CCI PMS

CM 3

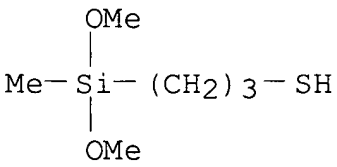
CRN 2478-10-6
CMF C7 H12 O3



RN 181937-21-3 HCAPLUS
CN 2-Propenamide, telomer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si

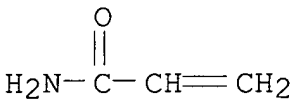


CM 2

CRN 9003-05-8
CMF (C3 H5 N O)x
CCI PMS

CM 3

CRN 79-06-1
CMF C3 H5 N O



IC ICM C08L029-04
ICS C08L029-04; C08L071-00; C08L101-10
CC **37-6** (Plastics Manufacture and Processing)
IT 2487-90-3DP, Trimethoxysilane, reaction products with poly(Et acrylate) 9002-88-4DP, LDPE, reaction products with ethoxydimethylsilane 9003-32-1DP, Poly(ethyl acrylate), reaction products with trimethoxysilane 14857-34-2DP, Ethoxydimethylsilane, reaction products with LDPE 181937-00-8P **181937-04-2P** 181937-12-2P 181937-17-7P **181937-21-3P**
(hydrolyzable silyl-contg. polymer-poly(vinyl alc.) compns. with good compatibility)

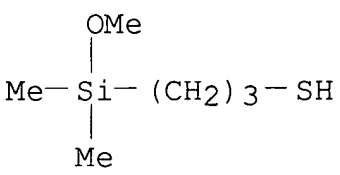
L38 ANSWER 16 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:598520 Document No. 125:224116 Manufacture of water-soluble poly(vinyl alcohol)-based films for packaging materials. Tanimoto, Tomohito; Terada, Kazutoshi; Kinugawa, Masaaki; Fujiwara, Naoki; Myazaki, Hirotoshi; Sato, Toshiaki; Maruyama, Hitoshi (Kuraray Co, Japan). Jpn. Kokai Tokkyo Koho JP 08188697 A2 19960723 Heisei, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1995-1840 19950110.
AB Title films are manufd. by applying an aq. soln. comprising (A) vinyl alc. polymers and (B) water-sol. polymers, with softening temp. .ltoreq.0.degree., contg. one terminal Si-contg. functional groups giving silanol groups in the presence of H2O. Thus, 100 parts poly(vinyl alc.) modified with Na 2-acrylamido-2-methylpropanesulfonate and 20 parts Uniox PKA 5006 (polyethylene glycol monoallyl ether) having one dimethoxymethylsilyl terminal were mixed with 570 parts H2O and cast to give a film showing good soly. for cold H2O and high impact strength at low temp.
IT **181475-77-4P 181475-80-9DP**, methoxydimethylsilyl-

terminated
(manuf. of water-sol. poly(vinyl alc.)-based films for packaging materials)

RN 181475-77-4 HCAPLUS
CN 2-Propenoic acid, 4-hydroxybutyl ester, telomer with 3-(methoxydimethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 14857-97-7
CMF C6 H16 O S Si

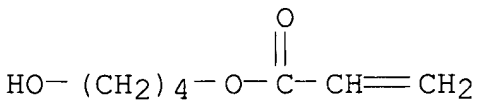


CM 2

CRN 29086-87-1
CMF (C7 H12 O3)x
CCI PMS

CM 3

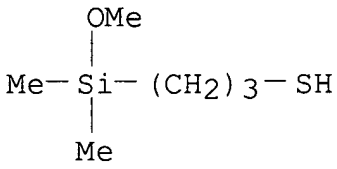
CRN 2478-10-6
CMF C7 H12 O3



RN 181475-80-9 HCAPLUS
CN 2-Propenoic acid, 2-hydroxyethyl ester, telomer with 3-(methoxydimethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 14857-97-7
CMF C6 H16 O S Si

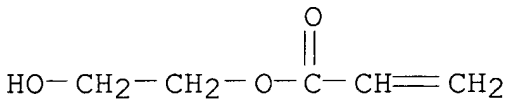


CM 2

CRN 26022-14-0
CMF (C5 H8 O3)x
CCI PMS

CM 3

CRN 818-61-1
CMF C5 H8 O3



IC ICM C08L029-04
ICS C08L029-04; B29C041-12; C08J005-18; C08L101-10
CC **38-3** (Plastics Fabrication and Uses)
IT 97-65-4DP, reaction products with poly(vinyl alc.) 4420-74-0DP, reaction products with polyethylene-polypropylene glycol monoallyl ether 5165-97-9DP, Sodium 2-acrylamido-2-methylpropanesulfonate, reaction products with poly(vinyl alc.) 9041-33-2DP, Polyethylene-polypropylene glycol monoallyl ether, reaction products with (3-mercaptopropyl)trimethoxysilane **181475-77-4P** **181475-80-9DP**, methoxydimethylsilyl-terminated 181588-49-8P
(manuf. of water-sol. poly(vinyl alc.)-based films for packaging materials)

L38 ANSWER 17 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:136107 Document No. 124:177167 Spectroscopic Investigation of the Thermal Cis-Trans Isomerization of Disperse Red 1 in Hybrid Polymers. Boehm, N.; Materny, A.; Kiefer, W.; Steins, H.; Mueller, M. M.; Schottner, G. (Institut fuer Physikalische Chemie, Universitaet Wuerzburg, Wuerzburg, D-97070, Germany). Macromolecules, 29(7), 2599-604 (English) 1996. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.
AB The thermal cis-trans isomerization of disperse red 1 in hybrid

polymers was investigated. Transient absorption spectroscopy was used to measure the reaction kinetics of doped and functionalized systems of 3 matrixes. The matrixes show different rigidity. In most of the cases the thermal decay of the cis-isomers can be fitted by a sum of 2 first-order reactions, a slow and a fast one, which are interpreted on the basis of rotational and translational relaxation processes of chain segments. The rate consts. of the 2 reactions increase and the fraction of the fast reacting cis-isomers (xb) decreases with increasing rigidity of the matrix. The apparent influence of the matrix rigidity on xb-which is assocd. with the cooperative translational movement of chain segments-is greater in doped systems than in the functionalized ones due to a more rigid org. network. Chromophores which are freely distributed in a polymer can be more easily enclosed in the synthesis, thus being less disturbing in the buildup process of the org. polymer. The polymer around the chromophore is more regular, and a cooperative translational motion of adjacent chain segments is more likely.

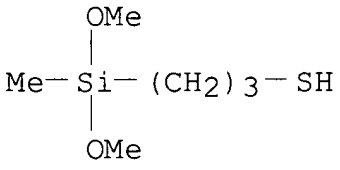
IT **148568-79-0 174201-59-3**
(spectroscopic investigation of the thermal cis-trans isomerization of Disperse Red 1 in hybrid polymers)

RN 148568-79-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

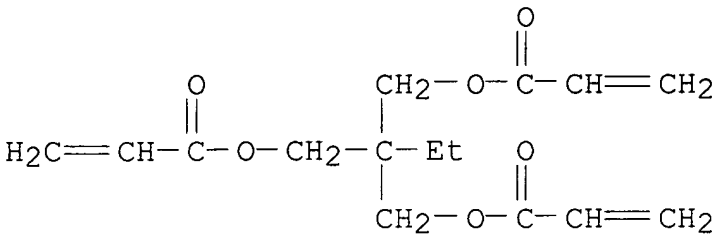
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



CM 2

CRN 15625-89-5
CMF C15 H20 O6

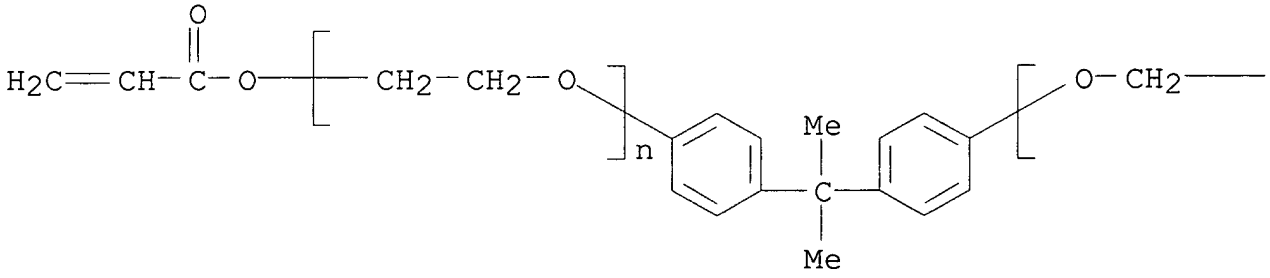


RN 174201-59-3 HCAPLUS
CN 1-Propanethiol, 3-(dimethoxymethylsilyl)-, polymer with .alpha.,.alpha.'-[(1-methylethylidene)di-4,1-phenylene]bis[.omega.-[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

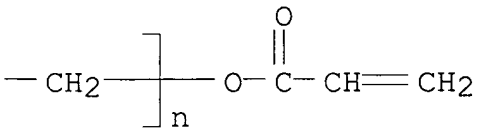
CM 1

CRN 64401-02-1
CMF (C2 H4 O)n (C2 H4 O)n C21 H20 O4
CCI PMS

PAGE 1-A



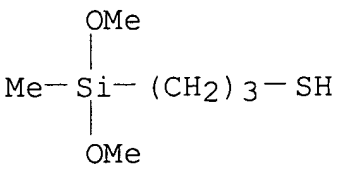
PAGE 1-B



CM 2

CRN 31001-77-1

CMF C6 H16 O2 S Si



CC **35-8** (Chemistry of Synthetic High Polymers)
Section cross-reference(s): 41

IT 2872-52-8, Disperse red 1 103553-48-6, Disperse red 1 methacrylate ester **148568-79-0** 174201-58-2 **174201-59-3** 174201-60-6 174201-61-7 174201-62-8
(spectroscopic investigation of the thermal cis-trans isomerization of Disperse Red 1 in hybrid polymers)

L38 ANSWER 18 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

1996:97159 Document No. 124:159896 Light modulating device having a vinyl ether-based matrix. Nerad, Bruce A.; Vesley, George F. (Minnesota Mining and Mfg. Co., USA). PCT Int. Appl. WO 9529967 A1 19951109, 46 pp. DESIGNATED STATES: W: CA, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1995-US4358 19950407. PRIORITY: US 1994-236545 19940429.

AB Optically responsive films are described that comprise a liq. crystal dispersed in a crosslinked polymer matrix comprising the reaction product of an isotropic polymerizable mixt. that includes at least one vinyl ether and, optionally, at least one multifunctional reactant other than a vinyl ether. Optical devices (optical modulators) employing the films are also described.

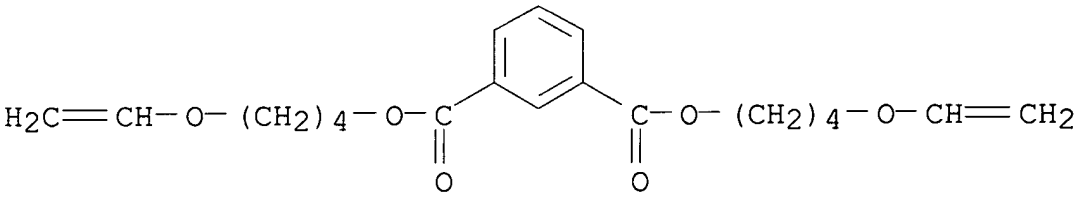
IT **173308-59-3**
(light modulating device having vinyl ether-based matrix)

RN 173308-59-3 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, bis[4-(ethenyloxy)butyl] ester, polymer with 3,3'-(1,1,3,3-tetramethyl-1,3-disiloxanediyl)bis[1-propanethiol] (9CI) (CA INDEX NAME)

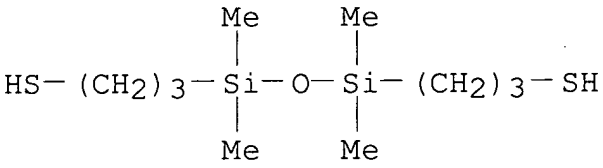
CM 1

CRN 130066-57-8
CMF C20 H26 O6



CM 2

CRN 18001-52-0
CMF C10 H26 O S2 Si2



IC ICM C09K019-54
CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): **38**, 75
IT 79-10-7, Acrylic acid, uses 79-41-4, Methacrylic acid, uses 111-34-2, Butyl vinyl ether 142-90-5, Lauryl methacrylate 765-12-8, Triethylene glycol divinyl ether 930-02-9, Octadecyl vinyl ether 5931-17-9, 1,3-Bis(4-hydroxybutyl)tetramethyldisiloxane 13048-33-4 29590-42-9, Isooctyl acrylate 33007-83-9, Trimethylolpropane tris(3-mercaptopropionate) 42978-84-7, Hydroxybutyl vinyl ether 48145-04-6, 2-Phenoxyethyl acrylate 92415-95-7 130066-57-8, Vectomer 4010 130668-21-2 131132-77-9, Vectomer 4020 143477-68-3, Vectomer 2010 143477-70-7, Vectomer 2020 164252-19-1, RCC-15C **173308-59-3** 173359-19-8, Uralac 3004-100 173359-20-1, Uralac 3004-101 173359-21-2, Uralac 3004-102 173359-22-3, Uralac 3004-109 173359-23-4, Uralac 3004-300
(light modulating device having vinyl ether-based matrix)

L38 ANSWER 19 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1995:934015 Document No. 123:315725 Covalent-nucleophilic self-crosslinking systems based on polymerizable and hydrolytically condensable silicon compounds. Wolter, Herbert; Storch, Werner (Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany). Eur. Pat. Appl. EP 668326 A2 19950823, 22 pp.

DESIGNATED STATES: R: AT, BE, CH, DE, DK, FR, GB, IT, LI, LU, NL, SE. (German). CODEN: EPXXDW. APPLICATION: EP 1995-100809 19950121. PRIORITY: DE 1994-4405261 19940218.

AB Covalent-nucleophilic self-curing systems, based on polymerizable and hydrolytically condensable Si compds., comprise a first Si-contg. component and a crosslinking agent, in addn. to other copolymerizable and hydrolytically condensable Si-contg. monomers, additives, fillers, and metal compds. The first component has the general formula {XaRbSi[(R1A)c](4-a-b)}xB, in which A = O, S, PR2, POR2, NHC(:O)O, or NHC(:O)NR2; B is an C5-50-org. moiety contg. at least 2 C:C bonds; R = alkyl, alkenyl, aryl, alkylaryl, or arylalkyl; R1 = alkylene, arylene, or alkylenearylene; R2 = H, alkyl, or aryl; X = H, halogen, OH, alkoxy, acyloxy, alkylcarbonyl, alkoxycarbonyl, or NR22; a = 1-3; b = 0-2; c = 0-1; and x has a max. value of the no. of C:C double bonds in B minus 1. This component preferably contains such Si-contg. fragments as -Si(OEt)3, -MeSi(OEt)2, -MeSiCl2, -S(CH2)3Si(Me)(OMe)2, -S(CH2)3Si(OEt)3, -SCH2Si(Me)2(OEt), -SCH2Si(OEt)2Me, and 3-triethoxysilylpropyl urethane. The crosslinking agent is suitably a compd. contg. .gtoreq.1 amino group and can be a Si-functionalized amine.

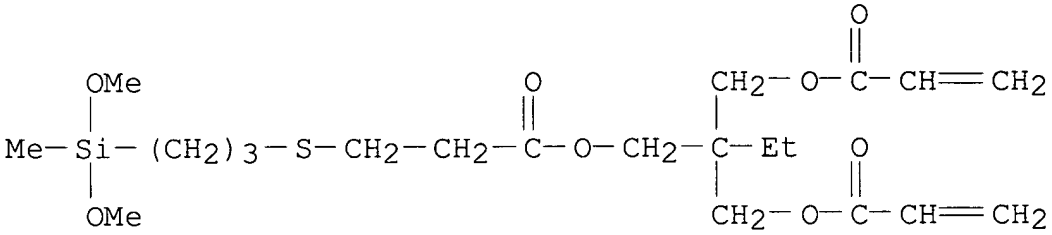
IT **170633-94-0P 170633-95-1P**
(covalent-nucleophilic self-crosslinking systems based on polymerizable and hydrolytically condensable Si compds.)

RN 170633-94-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, polymer with 1,2-ethanediamine (9CI) (CA INDEX NAME)

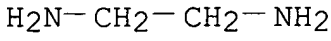
CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



CM 2

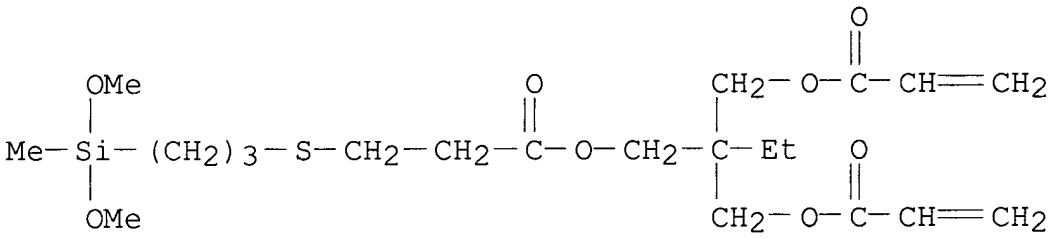
CRN 107-15-3
CMF C2 H8 N2



RN 170633-95-1 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanamine (9CI) (CA INDEX NAME)

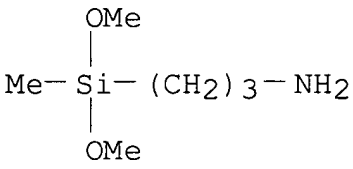
CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



CM 2

CRN 3663-44-3
CMF C6 H17 N O2 Si



IC ICM C08L083-06
ICS C08L083-08
CC **37-6** (Plastics Manufacture and Processing)
Section cross-reference(s): **35**
IT 170633-93-9P **170633-94-0P 170633-95-1P**
(covalent-nucleophilic self-crosslinking systems based on polymerizable and hydrolytically condensable Si compds.)

L38 ANSWER 20 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

1995:248928 Document No. 122:189832 Binders for inorganic materials. Fujiwara, Naoki (Kuraray Co, Japan). Jpn. Kokai Tokkyo Koho JP 06248247 A2 19940906 Heisei, 6 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1993-36540 19930225.

AB Binders giving water-resistant molding products, useful for ceramics, concrete, slate, etc., comprise modified poly(vinyl acetals) contg. 0.01-10 mol% Si-contg. functional groups. Thus, 99.4:0.6 vinyl acetate-vinyltrimethoxysilane copolymer was sapond. to obtain a modified poly(vinyl alc.), 100 parts of which was reacted with 11 parts PrCHO to give a modified poly(vinyl butyral). Then, a slurry of 70:30 rock wool-asbestos mixt. was blended with an aq. NaOH soln. contg. the poly(vinyl butyral), made into a sheet, dried, and left at room temp. and relative humidity 65% for 48 h to give a test piece showing good water resistance and breaking strength.

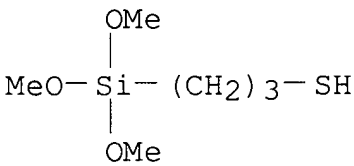
IT **94649-22-6DP**, sapond., acetalized (silyl-contg. poly(vinyl acetals) as water-resistant binders for inorg. materials)

RN 94649-22-6 HCAPLUS

CN Acetic acid ethenyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

CRN 9003-20-7
CMF (C4 H6 O2)x
CCI PMS

CM 3

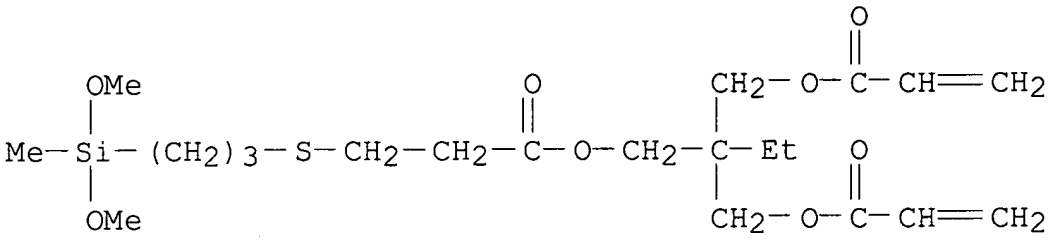
CRN 108-05-4
CMF C4 H6 O2

IC ICM C09J129-14
ICS D04H001-42
CC **38-3** (Plastics Fabrication and Uses)
Section cross-reference(s): 58
IT 30850-72-7DP, Vinyl acetate-vinyltrimethoxysilane copolymer, sapond., acetalized 86368-72-1DP, Vinyl acetate-vinyltriacetoxysilane copolymer, sapond., acetalized 86368-75-4DP, sapond., acetalized **94649-22-6DP**, sapond., acetalized
(silyl-contg. poly(vinyl acetals) as water-resistant binders for inorg. materials)

L38 ANSWER 21 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1994:77660 Document No. 120:77660 Multifunctional (meth)acrylate alkoxysilanes. A new type of reactive compounds. Wolter, H.; Glaubitt, W.; Rose, K. (Fraunhofer-Inst. Silicatforsch., Wuerzburg, D-8700, Germany). Materials Research Society Symposium Proceedings, 271(Better Ceramics through Chemistry V), 719-24 (English) 1992. CODEN: MRSPDH. ISSN: 0272-9172.
AB A new class of (meth)acrylate-substituted alkoxysilanes has been developed. These are synthesized by addn. of the H-S- or H-Si-unit of thiosilanes [e.g. HS-(CH2)3-SiCH3(OCH3)2] or hydrosilanes to one (meth)acrylate C=C bond of com. available ditri-, tetra- or penta-(meth)acrylate compds. The alkoxysilyl groups allow the formation of an inorg. Si-O-Si-network by hydrolysis and polycondensation reaction (sol-gel process), and the (meth)acrylate groups are available for thermally or photochem. induced org. polymn.. The elegant procedure for the synthesis of a wide variety of multifunctional alkoxysilanes and the prepn. of optical lenses will be discussed.
IT **146124-41-6P**
(prepn. and curing of)
RN 146124-41-6 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



CC **35-2** (Chemistry of Synthetic High Polymers)
Section cross-reference(s): **37**, 73

IT **146124-41-6P**
(prepn. and curing of)

L38 ANSWER 22 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

1993:480284 Document No. 119:80284 Siloxane-containing dental resin mass. Wolter, Herbert; Storch, Werner (Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung eV, Germany). Ger. Offen. DE 4133494 A1 19930415, 32 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1991-4133494 19911009.

AB A self-hardening or photochem. or thermally hardenable dental resin mass is prepd. by hydrolytic condensation of monomers comprising 1-100 mol% YnSiXmR4-(n+m) and/or [XnRkSi(R2Al)4-(n+k)]xB [A = O, S, PR1, POR1, NHC(:O)O, NHC(:O)ONR1; B = straight- or branched-chain unsatd. org. residue, e.g. (meth)acrylate ester; R = alkyl, alkenyl, aryl, alkylaryl, aralkyl; R1 = H, alkyl, aryl; R2 = alkylene, arylene, alkylenearylene; X = H, halo, OH, alkoxy, acyloxy, alkylcarbonyl, alkoxycarbonyl, NR12; Y = (un)substituted 1,4,6-trioxaspiro[4.4]nonane-contg. residue; n = 1-3; k = 0-2; l = 0, 1; x = integer]. These resins possess excellent abrasion resistance, form stability, adhesiveness to enamel and dentin, and polishability, low thermal expansion coeffs., high radioopacity, and little or no shrinkage (or even some expansion) during hardening. Thus, trimethylolpropane triacrylate 88.9 underwent thiol addn. with (mercaptomethyl)methyldiethoxysilane in the presence of KOH, followed by HCl-catalyzed hydrolysis and condensation of the MeO groups to provide a transparent viscous resin. This resin 15.6 was combined with 2,2-bis[4'-(2"-methacryloylethoxy)phenyl]propane 6.44, 4-methoxyphenyl 0.007, ethylbenzoin 0.06, camphorquinone (photoinitiator) 0.10, 1-n-butoxyethyl 4-(dimethylamino)benzoate 0.13, silanized Sr silicate glass (filler) 54.4, and silanized silica gel 23.3 g to form a pasty mass which was photochem. hardened. The product showed a bending strength of 110 MPa, water uptake of 0.57%, and shrinkage after 24 h of 2.3%. The prepn. of 2-trimethoxysilylpropyl Me ether-1,4,6-trioxaspiro[4.4]nonane from .gamma.-butyrolactone and 3-glycidyloxypropyltrimethoxysilane, its hydrolytic condensation in aq. NEt3, its cationic polymn. initiated

by UVi-6990 or KI-85, and its photochem. hardening under UV are also described.

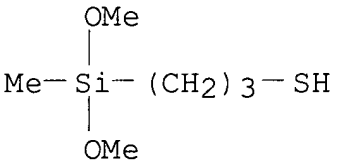
IT **148568-79-0P 148568-80-3P 148568-81-4DP,** trimethylsilanized **148568-81-4P 148568-82-5P 148568-83-6P 148568-84-7P 148568-85-8P 148601-81-4P**
(prepn. of, for dental resin)

RN 148568-79-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

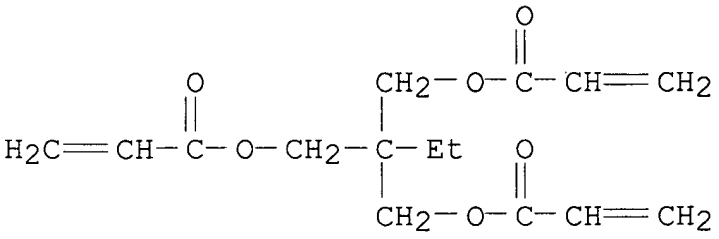
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



CM 2

CRN 15625-89-5
CMF C15 H20 O6



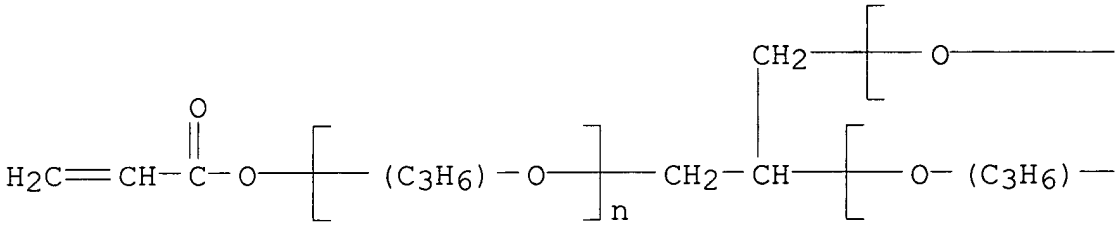
RN 148568-80-3 HCAPLUS

CN 1-Propanethiol, 3-(dimethoxymethylsilyl)-, polymer with .alpha.,.alpha.',.alpha.''-1,2,3-propanetriyltris[.omega.-[(1-oxo-2-propenyl)oxy]poly[oxy(methyl-1,2-ethanediyl)]] (9CI) (CA INDEX NAME)

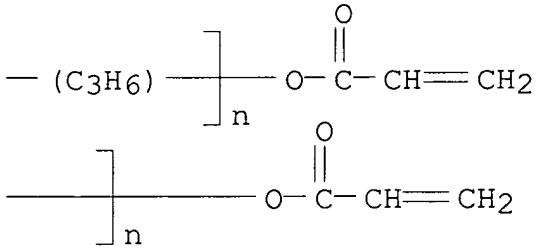
CM 1

CRN 52408-84-1
CMF (C3 H6 O)n (C3 H6 O)n (C3 H6 O)n C12 H14 O6
CCI IDS, PMS

PAGE 1-A

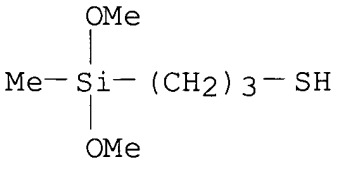


PAGE 1-B



CM 2

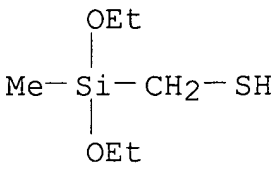
CRN 31001-77-1
CMF C6 H16 O2 S Si



RN 148568-81-4 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (diethoxymethylsilyl)methanethiol (9CI) (CA INDEX NAME)

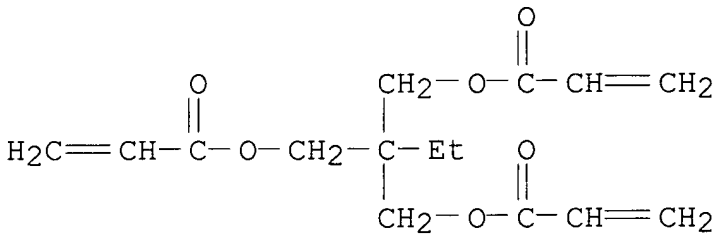
CM 1

CRN 55161-63-2
CMF C6 H16 O2 S Si



CM 2

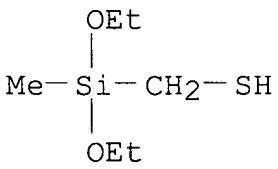
CRN 15625-89-5
CMF C15 H20 O6



RN 148568-81-4 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (diethoxymethylsilyl)methanethiol (9CI) (CA INDEX NAME)

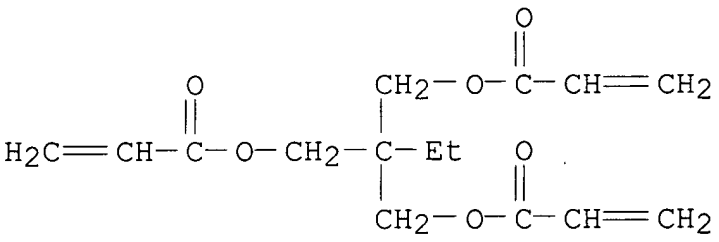
CM 1

CRN 55161-63-2
CMF C6 H16 O2 S Si



CM 2

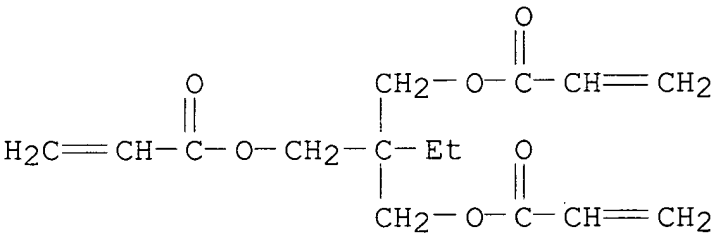
CRN 15625-89-5
CMF C15 H20 O6



RN 148568-82-5 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (methoxydimethylsilyl)methanethiol (9CI) (CA INDEX NAME)

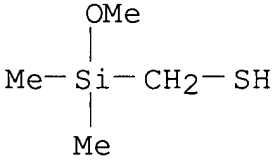
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

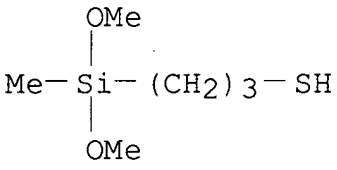
CRN 14857-93-3
CMF C4 H12 O S Si



RN 148568-83-6 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

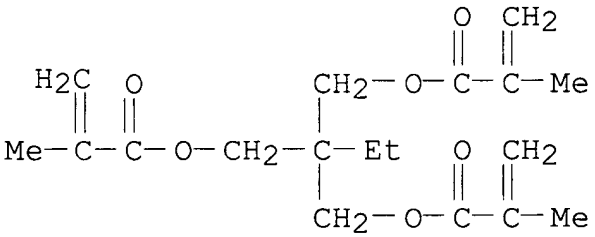
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



CM 2

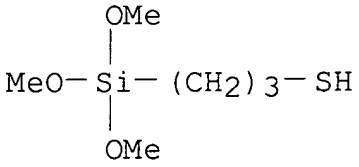
CRN 3290-92-4
CMF C18 H26 O6



RN 148568-84-7 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, 2-ethyl-2-[[(2-methyl-1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

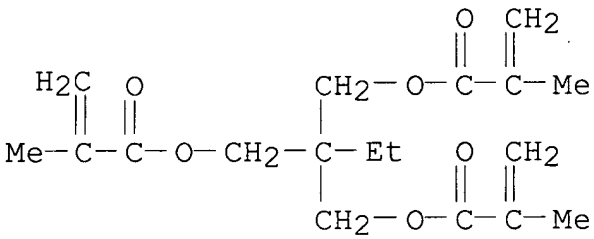
CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

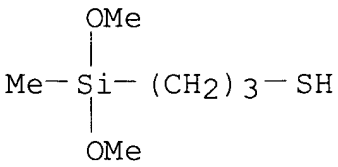
CRN 3290-92-4
CMF C18 H26 O6



RN 148568-85-8 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)di-4,1-phenylene ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

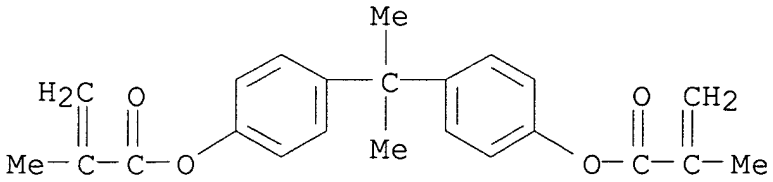
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



CM 2

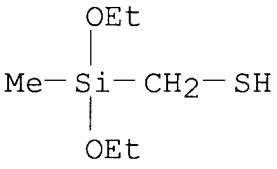
CRN 3253-39-2
CMF C23 H24 O4



RN 148601-81-4 HCAPLUS
CN 2-Propenoic acid, 2-methyl-, (1-methylethylidene)di-4,1-phenylene ester, polymer with (diethoxymethylsilyl)methanethiol (9CI) (CA INDEX NAME)

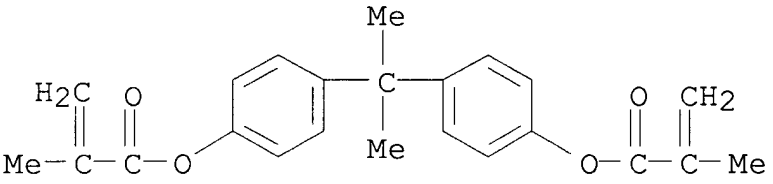
CM 1

CRN 55161-63-2
CMF C6 H16 O2 S Si



CM 2

CRN 3253-39-2
CMF C23 H24 O4



IC ICM A61K006-093
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): **37**
IT **148568-79-0P 148568-80-3P 148568-81-4DP,** trimethylsilanized **148568-81-4P 148568-82-5P 148568-83-6P 148568-84-7P 148568-85-8P 148601-81-4P** 148601-82-5P 148797-99-3DP, trimethylsilanized 148797-99-3P

(prepn. of, for dental resin)

L38 ANSWER 23 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN
1986:591854 Document No. 105:191854 Terminal silyl group-containing poly(vinyl alcohol). Terada, Kazutoshi; Sato, Toshiaki; Yamauchi, Junnosuke; Okaya, Takuji (Kuraray Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61081405 A2 19860425 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-204580 19840928.

AB Aq. solns. of low-mol. wt. poly(vinyl alc.) with terminal hydrolyzable silyl groups give strong, high-mol. wt. films on evapn.. Thus, 2400 parts vinyl acetate was polymd. in MeOH contg. 29.4 parts (MeO)3(CH2)3SH and 0.87 part AIBN at 60.degree. for 3 h to give a 40.9% polymer soln. The soln. was stripped and sapond. with methanolic NaOH at 40.degree. (degree of sapon. 99.2 mol%, relative viscosity 1.263 (1% aq. soln., 30.degree.). A 5% aq. soln. was cast on a polyester film, dried at room temp. for 4 days, heated at 160.degree. for 10 min, and stored at 20.degree. and 65% relative humidity for 4 days to give a film (thickness 100-150 .mu.) with tensile strength 3.77 kg/mm2, elongation 45%, and elastic modulus 70 kg/mm2.

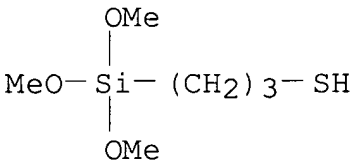
IT **94649-22-6DP**, sapond. **104282-93-1DP**, sapond.
(prepn. of, for films with high strength)

RN 94649-22-6 HCAPLUS

CN Acetic acid ethenyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



CM 2

CRN 9003-20-7
CMF (C4 H6 O2)x
CCI PMS

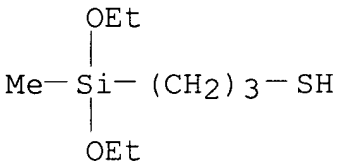
CM 3

CRN 108-05-4
CMF C4 H6 O2

RN 104282-93-1 HCAPLUS
CN Acetic acid ethenyl ester, telomer with 3-(diethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 13818-38-7
CMF C8 H20 O2 S Si



CM 2

CRN 9003-20-7
CMF (C4 H6 O2)x
CCI PMS

CM 3

CRN 108-05-4
CMF C4 H6 O2

IC ICM C08F008-42
ICS C08F008-12; C08F016-06; C08L029-06
CC **35-8** (Chemistry of Synthetic High Polymers)
IT **94649-22-6DP**, sapond. **104282-93-1DP**, sapond.
105009-86-7DP, sapond.
(prepn. of, for films with high strength)

L38 ANSWER 24 OF 24 HCAPLUS COPYRIGHT 2004 ACS on STN

1986:519761 Document No. 105:119761 Surface treating agents for porous inorganic materials. Terada, Kazutoshi; Sato, Toshiaki; Yamauchi, Junnosuke; Okaya, Takuji (Kuraray Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 61083690 A2 19860428 Showa, 8 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1984-206848 19841001.

AB Vinyl alc. polymers terminated with reactive Si terminals and obtained by hydrolysis of SiR3-nR1n (R = C1-20 hydrocarbon; R1 = C1-20 alkoxy, phenoxy, alkylphenoxy, acyloxy groups optionally having O-contg. substituents; n = 1, 2, 3), are useful in manufg. porous inorg. materials resistant to alkalies and water, and having strong adhering properties. Thus, vinyl acetate was polymd. for 3 h in the presence of HS(CH2)3Si(OMe)3 (I) and AlBN, I was added, and further polymd. to give silyl-terminated poly(vinyl acetate) which was sapond. This was applied (50 g/m2) on an asbestos plate, dried 2 days at room temp., the coating was cut (1-cm width), dipped 3 days in water, and then tested to show 2.3 kg/cm adhesion strength (peeling angle 90.degree., pulling speed 500 mm/min), vs..0.2 kg/cm for a poly(vinyl alc.) coating prepd. in the presence of HS(CH2)2OH instead of I.

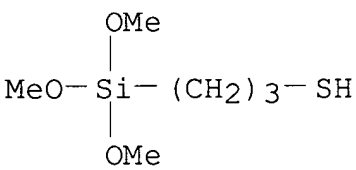
IT **94649-22-6D**, sapond. **104282-92-0D**, sapond. **104282-93-1D**, sapond.
(coatings, on porous inorg. materials, for stronger adhesion and water resistance)

RN 94649-22-6 HCAPLUS

CN Acetic acid ethenyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

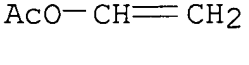


CM 2

CRN 9003-20-7
CMF (C4 H6 O2)x
CCI PMS

CM 3

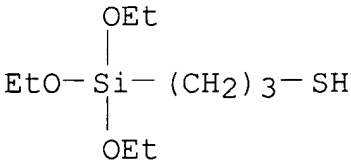
CRN 108-05-4
CMF C4 H6 O2



RN 104282-92-0 HCAPLUS
CN Acetic acid ethenyl ester, telomer with 3-(triethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 14814-09-6
CMF C9 H22 O3 S Si

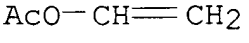


CM 2

CRN 9003-20-7
CMF (C4 H6 O2)x
CCI PMS

CM 3

CRN 108-05-4
CMF C4 H6 O2

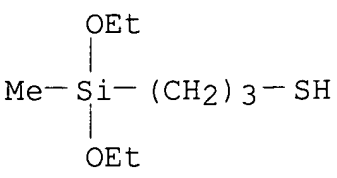


RN 104282-93-1 HCAPLUS
CN Acetic acid ethenyl ester, telomer with 3-(diethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 13818-38-7

CMF C8 H20 O2 S Si

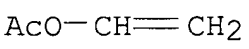


CM 2

CRN 9003-20-7
CMF (C4 H6 O2)x
CCI PMS

CM 3

CRN 108-05-4
CMF C4 H6 O2



IC ICM C04B041-63
ICS C08F016-06; C09D003-74
CC 58-4 (Cement, Concrete, and Related Building Materials)
Section cross-reference(s): **35**
IT **94649-22-6D**, sapond. **104282-92-0D**, sapond.
104282-93-1D, sapond.
(coatings, on porous inorg. materials, for stronger adhesion and water resistance)

=> d his l40-

FILE 'HCAPLUS' ENTERED AT 18:40:36 ON 23 JAN 2004
L40 11 S L21/D OR L21/DP
L41 11 S L39 NOT L40

=> d l41 1-11 cbib abs fhitstr hitrn

L41 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
2003:950499 Document No. 140:6259 Oil- and/or water-repellent coating

compositions containing fluorinated oligomers. Dams, Rudolf J. (3M Innovative Properties Company, USA). U.S. Pat. Appl. Publ. US 2003224112 A1 20031204, 17 pp. (English). CODEN: USXXCO. APPLICATION: US 2003-444879 20030523. PRIORITY: EP 2002-100649 20020603.

AB The compns. comprise: (A) one or more fluorinated oligomers derivable from a free radical polymn. of one or more fluorinated monomers and optionally one or more non-fluorinated monomers in the presence of a chain transfer agent, (B) one or more nonfluorinated compds. of an element M2 selected from Si, Ti, Zr, B, Al, Ge, V, Pb, Sn and Zn, and having at least two hydrolyzable groups per mol. in an amt. sufficient to form a polycondensation product upon reaction with A, (C) water, and (D) an org. solvent, wherein A can be represented by a general formula: M1RqY(p-q-1), with M1=Si, Ti, Zr, B, Al, Ge, V, Pb, Sn or Zn, R=a nonhydrolyzable group, Y=hydrolyzable group, q=0, 1 or 2, p=the valence of M1 (3 or 4) and (p-q-1) is at least 1. Thus, polymg. 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl acrylate in the presence of A 160 (3-mercaptopropyl trimethoxylsilane) and AIBN gave an A, 50 parts of which was condensed with tetraethoxysilane to give a title compn., which was then spray coated on a glazed tiles and showed claimed properties.

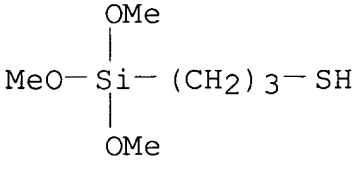
IT **443661-41-4P**
(prepns. of fluorinated oligomers for oil- and/or water-repellent coating compns.)

RN 443661-41-4 HCAPLUS

CN 2-Propenoic acid, 2-[methyl[(nonafluorobutyl)sulfonyl]amino]ethyl ester, telomer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si



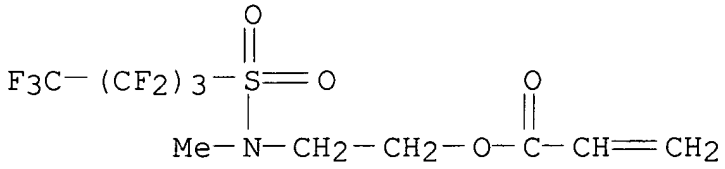
CM 2

CRN 306997-45-5
CMF (C10 H10 F9 N O4 S)x

CCI PMS

CM 3

CRN 67584-55-8
CMF C10 H10 F9 N O4 S



IT **443661-41-4P**
(prepns. of fluorinated oligomers for oil- and/or water-repellent coating compns.)

L41 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
2001:704765 Document No. 135:274287 Curable compositions and coating methods therefor. Maruyama, Tsutomu; Kusumoto, Nobuo (Kansai Paint Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001261741 A2 20010926, 9 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-74852 20000316.

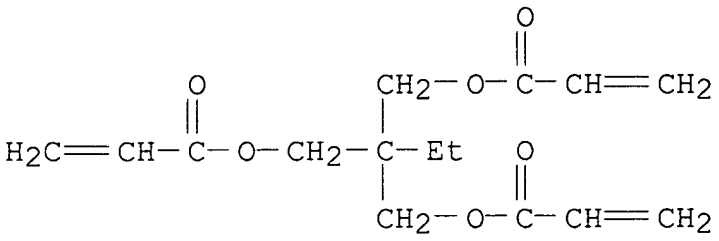
AB Curable compns. contain compds. having .gtoreq.1 unsatd. group and .gtoreq.1 alkoxy group 10-100, cationically polymerizable compds. 0-50, radically polymerizable compds. 0-50, cationic polymn. initiators 0.01-20/100 parts mixt. of the 1st 3 compds., and radical polymn. initiators 0.01-20 parts/100 parts mixt. of the 1st 3 compds. Thus, neopentyl glycol diacrylate 212, .gamma.-mercaptopropyltrimethoxysilane 196, and dioctyltin dilaurate 0.4 part were heated at 50.degree. to give a reaction product, mixed (100 parts) with 4 parts CI 2758 and 4 parts Irgacure 184, coated on glass, and cured with UV to prep. a coating having pencil hardness 4H.

IT **229031-51-0P**
(curable compns. contg. cationic and radical polymn. initiators for coatings)

RN 229031-51-0 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

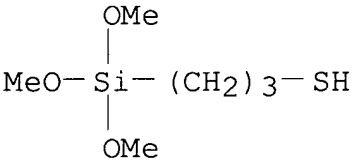
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 4420-74-0
CMF C6 H16 O3 S Si



IT **229031-51-0P 362511-29-3P 362511-40-8P**
(curable compns. contg. cationic and radical polymn. initiators for coatings)
IT **362511-33-9P**
(curable compns. contg. cationic and radical polymn. initiators for coatings)

L41 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1999:439344 Document No. 131:75066 Method for treating paint sludge. Gerace, Michael Joseph; Gamboa, Sevilla C.; Landaburu, Yasminka S. (Aster, Inc., USA). U.S. US 5922834 A 19990713, 9 pp., Cont.-in-part of U.S. Ser. No. 558,008. (English). CODEN: USXXAM. APPLICATION: US 1997-892486 19970714. PRIORITY: US 1995-558008 19951113.
AB A method for treating a raw paint sludge contg. an uncured polymer resin, water and/or org. solvents comprises drying the sludge without curing the polymer and decatalyzing the sludge with a base having pH 8-13. Thus, 2,000 g sludge (50% solids) was heated in vacuo to remove solvents and water, decatalyzed by 80 g diethanolamine dissolved with mild heating in 36 g diisodecyl phthalate, and used in a pressure-sensitive sealant compn. contg. rubbers.
IT **229031-51-0P**, A 189-TMPTA copolymer

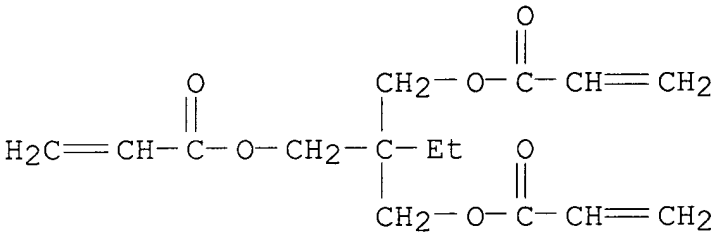
(drying and decatalyzing paint sludge and reuse in sealants and adhesives and coatings)

RN 229031-51-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(trimethoxysilyl)-1-propanethiol (9CI) (CA INDEX NAME)

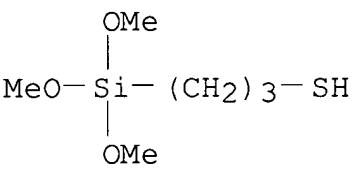
CM 1

CRN 15625-89-5
CMF C15 H20 O6



CM 2

CRN 4420-74-0
CMF C6 H16 O3 S Si



IT **229031-51-0P**, A 189-TMPTA copolymer
(drying and decatalyzing paint sludge and reuse in sealants and adhesives and coatings)

L41 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN

1998:398495 Document No. 129:68910 Enameled metallic wires. Wolter, Herbert; Storch, Werner; Deichmann, Karl (Fraunhofer-Gesellschaft zur Forderung der Angewandten Forschung e.V, Germany; Wolter, Herbert; Storch, Werner; Deichmann, Karl). PCT Int. Appl. WO 9825277 A1 19980611, 31 pp. DESIGNATED STATES: W: US; RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (German). CODEN: PIXXD2. APPLICATION: WO 1997-DE2781 19971128.

PRIORITY: DE 1996-19650288 19961204.

AB Enameled metallic wires bear one or several elec. insulating enamel layers. At least one of the elec. insulating enamel layers is composed of an org. modified silicic acid (hetero)polycondensate obtained by partial or total hydrolytic condensation of .gtoreq.1 Si compds. capable of being hydrolytically condensed and optionally B, Al, P, Sn, Pb, a transition metal, a lanthanide, and/or an actinide and/or is composed of precondensates derived from the above-mentioned compds., optionally in the presence of a catalyst and/or a solvent, under the effect of moisture. Thus, addn. of 0.3 mol HS(CH2)3SiMe(OMe)2 to 0.3 mol tris(2-hydroxyethyl) isocyanurate triacrylate in EtOAc in the presence of KOH, followed by acid hydrolysis with HCl, gave a topcoat material, which was applied at 11-.mu.m to a 0.95-mm Cu wire bearing a 30-.mu.m polyester-polyimide primer layer and thermally cured.

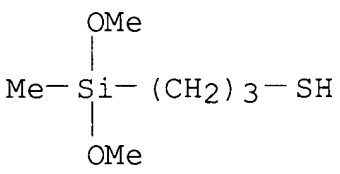
IT **148568-79-0P**, (3-Mercaptopropyl)dimethoxymethylsilane-trimethylolpropane triacrylate copolymer
(wires with ceramer insulating coatings)

RN 148568-79-0 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with 3-(dimethoxymethylsilyl)-1-propanethiol (9CI) (CA INDEX NAME)

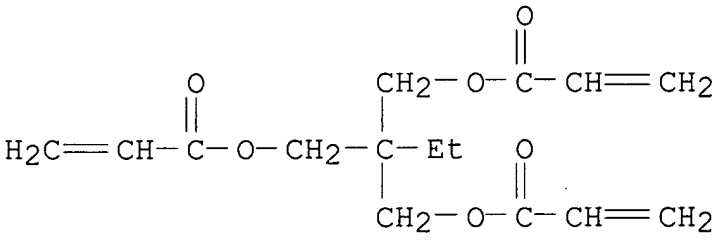
CM 1

CRN 31001-77-1
CMF C6 H16 O2 S Si



CM 2

CRN 15625-89-5
CMF C15 H20 O6



IT **148568-79-0P**, (3-Mercaptopropyl)dimethoxymethylsilane-trimethylolpropane triacrylate copolymer **209127-61-7P**, (3-Mercaptopropyl)dimethoxymethylsilane-tris(2-hydroxyethyl) isocyanurate triacrylate copolymer **209127-63-9P**, Diethoxy(mercaptomethyl)methylsilane-tris(2-hydroxyethyl) isocyanurate triacrylate copolymer
(wires with ceramer insulating coatings)

L41 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1998:376478 Document No. 129:87931 Optically Induced Dichroism and Birefringence of Disperse Red 1 in Hybrid Polymers. Boehm, N.; Materny, A.; Steins, H.; Mueller, M. M.; Schottner, G. (Institut fuer Physikalische Chemie, Universitaet Wuerzburg, Wuerzburg, D-97074, Germany). Macromolecules, 31(13), 4265-4271 (English) 1998. CODEN: MAMOBX. ISSN: 0024-9297. Publisher: American Chemical Society.

AB We report results of dichroism and birefringence measurements on Disperse Red 1 (DR1) in hybrid polymers. To investigate the influence of the matrix-chromophore interaction, we employ doped and functionalized systems using three kinds of matrixes with different rigidity. Writing, erasing, and rewriting processes are performed on the polymer films at temps. ranging from 50 to 300 K. Two processes are recognized, the photochem. cis-trans isomerization of the dye mols. and a thermal motion of the photoactive chromophore inside the surrounding matrix. By comparing results obtained from the different network systems, we find that the main parameter correlated with the extent of induced anisotropy is the degree of mobility of the chromophore within the surrounding matrix.

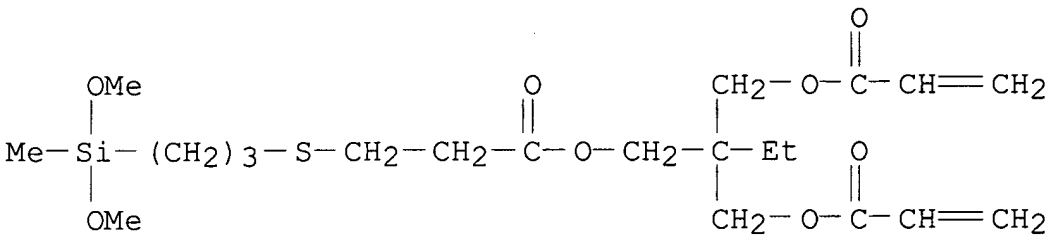
IT **146124-41-6P**
(optically induced dichroism and birefringence in Disperse Red 1 contg. hybrid polymers and optical recording based on dye photopolymn. in this system)

RN 146124-41-6 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



IT **146124-41-6P 193144-15-9P**
(optically induced dichroism and birefringence in Disperse Red 1 contg. hybrid polymers and optical recording based on dye photopolymn. in this system)

L41 ANSWER 6 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1997:424429 Document No. 127:137109 Development of organically modified polysiloxanes for coating optical fibers and their sensitivity to gases and solvents. Matejec, Vlastimil; Rose, Klaus; Hayer, Milos; Pospisilova, Marie; Chomat, Miroslav (Institute of Radio Engineering and Electronics, Academy of Sciences of the Czech Republic, Chaberska 57, 182 51, Prague, 8, Czech.). Sensors and Actuators, B: Chemical, B39(1-3), 438-442 (English) 1997. CODEN: SABCEB. ISSN: 0925-4005. Publisher: Elsevier.

AB Materials for coating silica optical fibers which are UV-curable and consist of a siloxane chain modified with reactive acrylate groups are prepd. by the sol-gel method. The value of the refractive index of these organically modified polysiloxanes (ORMOCERs) is controlled in the range 1.48 to 1.56 by chem. modification of the input alkoxysilane precursors. Several sensing structures based on silica optical fibers coated with the ORMOCERs have been designed and fabricated. Fibers with a core of multicomponent glass, with pure silica core, with pure silica core coated with a thin porous Si-O-Ti sol-gel layer and with a composite optical core have been fabricated and characterized by measuring their attenuation. The sensitivity of the ORMOCER coatings to solvents and to CO2 dissolved in water has been detd. in immersion expts. A new absorption band around 320 nm arising from interaction of the ORMOCERs with SO2 has been obsd., which causes the sensitivity of the ORMOCER layer to gaseous SO2.

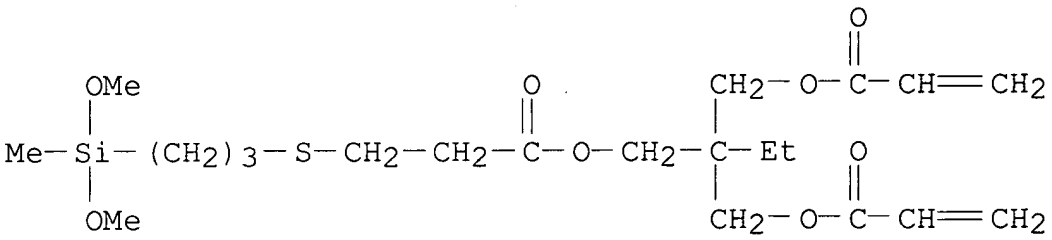
IT **146124-41-6**
(development of acrylic side group-contg. polysiloxanes for coating optical fibers and their sensitivity to gases and solvents)

RN 146124-41-6 HCAPLUS

CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



IT **146124-41-6 193144-15-9**
(development of acrylic side group-contg. polysiloxanes for coating optical fibers and their sensitivity to gases and solvents)

L41 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:731835 Document No. 125:331837 Printing inks cureable by low-pressure mercury lamps. Kappel, Juergen; Kron, Johanna; Martin, Adelheid; Wolter, Herbert; Popall, Michael (Fraunhofer-Gesellschaft zur Foerderung der Angewandten Forschung e.V., Germany). Ger. Offen. DE 19515756 A1 19961031, 26 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1995-19515756 19950428.

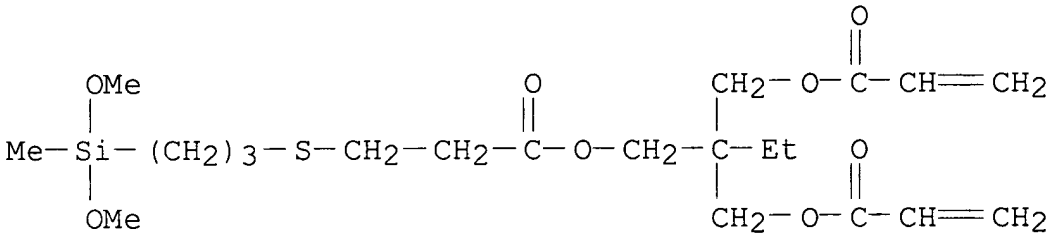
AB The title inks, which cure rapidly and can be used in high-speed roll printing, contain pigments, photoinitiators, and, as binders, mixts. of 20-95% SiO2 (hetero)polycondensates prepd. by hydrolytic polymn. of silanes (optionally contg. B, Al, P, Sn, Pb, transition metals, lanthanides, or actinides) and 20-100% (based on monomers) hydrolytically-polymerizable silanes of specified structure. An unpigmented film of trimethylolpropane diacrylate 3-[[3-(dimethoxymethlsilyl)propyl]thio]propionate [prepd. from trimethylolpropane triacrylate and 3-(dimethoxymethylsilyl)-1-propanethiol] contg. 3% Irgacure 184 could be cured tack-free by UV light (0.49 W/cm2) in 20 s.

IT **146124-41-6**
(binders; printing inks cureable by low-pressure mercury lamps)

RN 146124-41-6 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



IT **146124-41-6**
(binders; printing inks cureable by low-pressure mercury lamps)

L41 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1996:256446 Document No. 124:292708 Preparation and use of reaction products of saccharides with bifunctional reagents. Amberg-Schwab, Sabine; Jentgens, Christian; Holzmann, Christina (Fraunhofer-Gesellschaft zur Foerderrun der Angewandten Forschung e.V., Germany). Ger. Offen. DE 4431350 A1 19960307, 16 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1994-4431350 19940902.

AB In the title process, which does not require pre-activation of the saccharide, a mixt. of saccharide and reagent is subjected to pressure. Long, regenerated cellulose fibers were mixed in acetone with excess glycidyl methacrylate and held under a pressure of 14 bar for several days to give a product with degree of substitution .apprx.0.25. Use of reaction products in moldings is exemplified.

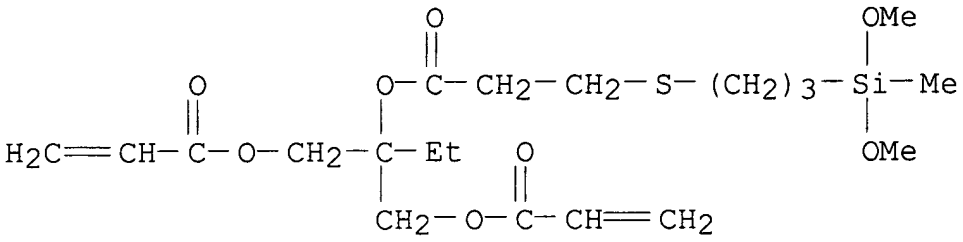
IT **175857-94-0**
(composites with silanized cellulose, for molding)

RN 175857-94-0 HCAPLUS

CN 2-Propenoic acid, 2-[3-[[3-(dimethoxymethylsilyl)propyl]thio]-1-oxopropoxy]-2-ethyl-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 177345-74-3
CMF C20 H34 O8 S Si



IT **175857-94-0**
(composites with silanized cellulose, for molding)

L41 ANSWER 9 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1995:876784 Document No. 124:75109 Immobilization of lipid membrane on silica gels for high performance liquid chromatography. Ihara, Hirotaka; Nakamura, Nobuyuki; Nagaoka, Shoji; Hirayama, Chuichi (Faculty Engineering, Kumamoto University, Kumamoto, 860, Japan). International Symposium on Chromatography, the 35th Anniversary of the Research Group on Liquid Chromatography in Japan, Yokohama, Jan. 22-25, 1995, 231-5. Editor(s): Hatano, Hiroyuki; Hanai, Toshihiko. World Scientific: Singapore, Singapore. (English) 1995. CODEN: 61VCAO.

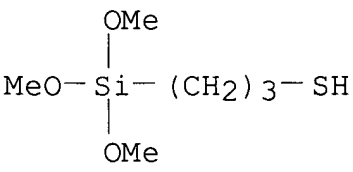
AB A comb-shaped acrylate polymer contg. a methoxy silanol group at one side of the terminal is synthesized and chem. introduced into porous silica gel. The silica-supported polymers show unique sepn. behaviors in liq. chromatog.

IT **172224-82-7**
(immobilization of lipid membrane on silica gels for high performance liq. chromatog.)

RN 172224-82-7 HCAPLUS
CN 1-Propanethiol, 3-(trimethoxysilyl)-, telomer with 1-heneicosen-3-one (9CI) (CA INDEX NAME)

CM 1

CRN 4420-74-0
CMF C6 H16 O3 S Si

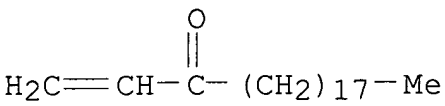


CM 2

CRN 172224-81-6
CMF (C21 H40 O)x
CCI PMS

CM 3

CRN 25147-63-1
CMF C21 H40 O

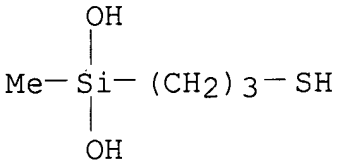


IT **172224-82-7**
(immobilization of lipid membrane on silica gels for high performance liq. chromatog.)

L41 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1995:606705 Document No. 123:69912 Light modulating device having a silicon-containing matrix. Nerad, Bruce A.; Vesley, George F. (Minnesota Mining and Mfg. Co., USA). PCT Int. Appl. WO 9504791 A1 19950216, 45 pp. DESIGNATED STATES: W: BR, CA, JP, KR; RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE. (English). CODEN: PIXXD2. APPLICATION: WO 1994-US7360 19940630. PRIORITY: US 1993-103271 19930806.
AB Optically responsive films are described in which a liq. crystal is dispersed in a matrix that includes siloxane linkages. The matrix may include the polymn. product of at least one multifunctional siloxane and at least one multifunctional silicon hydride.
IT **163763-33-5P**
(light modulating devices having a silicon-contg. polymeric matrix)
RN 163763-33-5 HCAPLUS
CN 2-Propenoic acid, 2,2-bis[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester, polymer with (3-mercaptopropyl)methylsilanediol (9CI) (CA INDEX NAME)

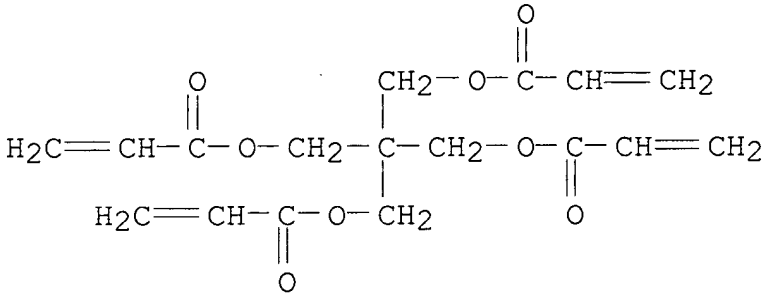
CM 1

CRN 156730-90-4
CMF C4 H12 O2 S Si



CM 2

CRN 4986-89-4
CMF C17 H20 O8

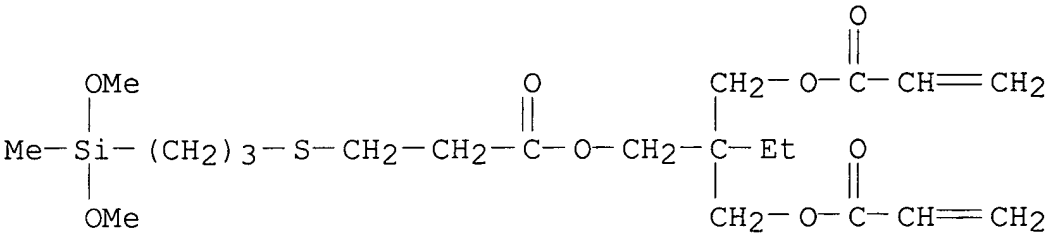


IT **163763-33-5P 163763-35-7P**
(light modulating devices having a silicon-contg. polymeric matrix)

L41 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2004 ACS on STN
1993:104842 Document No. 118:104842 Rapidly curable coatings for electronic applications. Wolter, H.; Amberg-Schwab, S.; Popall, M.; Schulz, J. (Fraunhofer-Inst. Silicatforsch., Wuerzburg, Germany). DVS-Berichte, 141(Verbindungstech. Elektron.), 215-17 (German) 1992. CODEN: DVSBA3. ISSN: 0418-9639.
AB The prepn., use, and properties of photocurable coatings based on trimethylolpropane diacrylate 8,8-dimethoxy-8-sila-4-thianonanoate were described.
IT **146124-41-6**
(coatings, photocurable, for electronic applications)
RN 146124-41-6 HCAPLUS
CN 2-Propenoic acid, 2-ethyl-2-(10-methoxy-10-methyl-3-oxo-2,11-dioxa-6-thia-10-siladodec-1-yl)-1,3-propanediyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 138170-29-3
CMF C21 H36 O8 S Si



IT **146124-41-6**
(coatings, photocurable, for electronic applications)